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OFF CAMPUS ACCESS CHALLENGES AMONG DISTANCE LEARNERS: INSIGHTS FROM GHANA

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ABSTRACT

The study is an assessment of off campus assesses of distance learners in Ghana focusing on the Eastern Region of Ghana. The necessity for dependable off-campus access to educational resources has been brought to light by the growing popularity of digital learning, especially for distance learners. In order to improve off-campus access for distance learners in Ghana, this study looks at the availability of digital materials and the internet, identifies major problems, and considers possible remedies. Data was gathered from a sample of 171 respondents using a questionnaire. The results show that although while the majority of students own personal learning devices and have a moderate amount of access to digital resources, there are still a number of major obstacles, such as expensive internet, platform usability problems, and physical obstacles like frequent power outages. Furthermore, there were clear differences in digital access between urban and rural areas, with rural pupils having more challenges. The report emphasises the necessity of focused measures, such as better digital infrastructure, increased IT support services, and institutional backing for reasonably priced internet access. Promoting fair and successful remote learning opportunities in Ghana will require removing these obstacles.

KEYWORDS: Distance learning, digital access, internet availability, off-campus learning, Ghana

INTRODUCTION

1.1 Background of study

For those who are unable to participate in conventional, campus-based programs, the growth of remote learning in Ghana has produced new educational alternatives that are accessible and adaptable. Technological developments, encouraging government policies, and the growing desire for higher education among non-traditional students, working professionals, and rural communities have all contributed to this expansion (Asunka, 2017; Boateng & Tindi, 2019). However, many distance learners still face major obstacles when it comes to off-campus access. Students' capacity to fully engage in online learning settings is hampered by a number of important challenges, such as inconsistent internet connectivity, limited access to reasonably priced digital devices, expensive data plans, and inadequate technical support (Adarkwah, 2021; Ansong et al., 2020).

These obstacles are especially noticeable in poor and rural areas, where a lack of infrastructure exacerbates the already-existing digital divide and makes it challenging for students to regularly access instructional content (Effah & Awuah, 2019). Furthermore, socioeconomic variables that impact students' involvement and academic achievement, such as wealth inequality and levels of digital literacy, exacerbate these difficulties (Dzandu & Boateng, 2016). The accessibility of digital resources and internet connectivity for distant learners is one of the main areas of concern. Even though Ghana's internet penetration rate has increased over time, there is still a big gap between urban and rural areas, and many students in distant places find it difficult to get dependable and reasonably priced internet access (Owusu-Fordjour et al., 2020; Adu et al., 2018).

Students' capacity to properly interact with course content is further complicated by the fact that access to digital resources like computers, smartphones, and learning management systems is frequently restricted (Arkorful & Abaidoo, 2017). The high cost of data, erratic power supplies, and a lack of technical support from educational institutions are some of the additional difficulties faced by distance learners in addition to technology access (Amponsah et al., 2021; Osei et al., 2020). These problems have an effect on their motivation and general academic performance in addition to their capacity to access learning resources.

Investigating remedies and support networks that can improve distant learners' access to off-campus learning is crucial to overcoming these obstacles. Accessibility may be greatly increased by programs including government-subsidized internet bundles, collaborations between telecom companies and educational institutions, and the creation of offline learning materials (Aboagye et al., 2021; Kwapong, 2019). Furthermore, while institutional policies that support flexible learning schedules and the use of low-bandwidth educational materials can help ease some of the technological constraints, offering students technical support and training in digital literacy can enable them to navigate online learning platforms more successfully (Mensah & Anderson, 2022).

Educational stakeholders in Ghana can guarantee more fair and efficient access to remote education by comprehending the complex issues faced by distance learners and putting focused solutions into place. Therefore, the purpose of this study is to examine the unique difficulties that distant learners encounter when trying to access off-campus resources and to suggest solutions that can improve their educational experiences and academic performance.

1.2 Problem statement

The effectiveness of distant learning in Ghana is still hampered by major issues with off-campus access, despite the program's quick development and promise. In rural and underdeveloped locations, where infrastructural limitations worsen the digital divide, many distance learners face restricted access to dependable internet connectivity (Owusu-Fordjour et al., 2020; Adu et al., 2018). There is a clear difference between urban and rural areas; students in cities typically have superior internet infrastructure and access to digital resources, whereas students in remote areas deal with limited

network coverage and frequent connectivity issues (Effah & Awuah, 2019). Students' capacity to interact with online learning resources is further complicated by high data costs, erratic power supplies, and a shortage of reasonably priced digital equipment (Amponsah et al., 2021).

Additionally, distance learners in rural areas frequently lack these crucial resources, which contributes to unequal learning experiences, whereas urban learners may have access to libraries, computer laboratories, and technical support services (Arkorful & Abaidoo, 2017). Additionally, digital literacy is still a major problem. Many distance learners find it difficult to use online learning environments and learning management systems, especially those who are older and non-technical (Dzandu & Boateng, 2016; Osei et al., 2020).

Limited institutional support exacerbates this difficulty, since many educational institutions do not offer sufficient technical aid or training to assist students in overcoming these obstacles (Ansong et al., 2020). The ongoing obstacles show that these efforts are insufficient, despite the introduction of some initiatives to address these problems, such as free online resources, subsidised internet packages, and collaborations between telecom providers and educational institutions (Aboagye et al., 2021; Kwapong, 2019).

Furthermore, these difficulties are made worse by socioeconomic variables like physical location, family obligations, and income inequality. For example, students from low-income families may prioritise basic needs over educational expenses like data bundles and digital devices, while working professionals enrolled in distance learning programs frequently struggle to balance academic responsibilities with work commitments (Mensah & Anderson, 2022). This leads to a complex issue that impacts learning material engagement and access. Students' capacity to get the most out of distance learning is still hampered by the absence of comprehensive support networks, long-term fixes, and legislative initiatives. This issue emphasises how vital it is to evaluate internet and digital resource availability, pinpoint the main obstacles faced by distance learners, and investigate workable solutions that can increase off-campus access, lessen inequities, and improve learning outcomes in Ghana.

1.3 Purpose of the Study

The study assessed off campus access challenges among distance learners from Ghana. The study seeks to evaluate the accessibility of digital resources and the internet, pinpoint major obstacles including inadequate connectivity, expensive data plans, and low levels of digital literacy, and ways to increase access. The specific objectives of the study are:

- To assess the availability of internet and digital resources for distance learners in Ghana.
- To identify the challenges distance learners face in accessing learning materials off-campus.
- To explore solutions and support systems that can improve off-campus access for distance learners.

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2. LITERATURE REVIEW

2.1 Availability of internet and digital resources for distance learners

Distance learning has become an essential component of higher education in Ghana, offering flexible learning options to students who are unable to attend traditional on-campus classes. However, internet connectivity remains a significant challenge, particularly in rural areas with inadequate infrastructure. This results in inconsistent access and high costs for data plans, making it difficult for students to access online resources and participate in virtual learning activities (Adu et al., 2018; Effah & Awuah, 2019). Additionally, digital literacy levels among students remain low, further complicating their ability to navigate online learning platforms effectively (Dzandu & Boateng, 2016).

Studies indicate that distance education in Ghana still faces substantial obstacles in achieving seamless online learning experiences. Owusu et al. (2024) highlight that while digital learning introduces flexibility, the reliance on a hybrid model of online interactions and face-to-face sessions shows that full digital adoption is still a challenge. Kumi-Yeboah (2010) discusses the increasing use of digital tools such as computers, podcasts, and mobile devices to enhance learning. However, despite the integration of technology into distance education programs, minimal government policies and insufficient research on digital learning effectiveness have hindered further advancements.

The availability of digital learning materials has significantly improved educational access for distance learners in Ghana. Arthur-Nyarko et al. (2019) found that while students are willing to use digital resources, access to essential devices such as laptops and desktop computers remains limited. Most students rely on smartphones, which, despite their accessibility, present limitations such as small screens and storage constraints. Similarly, Huwiler (2015) noted that digital library services are often underutilized due to inadequate marketing and a lack of structured digital literacy support.

In addition, academic library services for distance learners require expansion to meet growing demands. Owusu-Ansah and Bubuama (2015) emphasize that many students are unaware of the digital resources available to them, while those who are aware face difficulties with remote access. Although initiatives such as Ghana's Information and Communication Technology for Accelerated Development (ICT4AD) policy aim to enhance digital accessibility, the practical implementation of these strategies remains insufficient, limiting the effectiveness of online learning tools.

Ameyaw and Asante (2016) further reinforce that internet access among distance students in Ghana is limited, with many only using it sporadically due to course structure and unreliable connectivity. Poor network infrastructure in university libraries exacerbates these challenges, making it difficult for students to fully benefit from digital learning opportunities. Moreover, Eshun et al. (2020) studied the role of Massive Open Online Courses (MOOCs) and found that while these courses are affordable and accessible, unstable internet connectivity remains a major barrier. The research suggested integrating MOOCs into existing university curricula to expand learning opportunities.

The COVID-19 pandemic further exposed the disparities in internet access and digital resource availability among distance learners. Aboagye et al. (2021) found that rural students were disproportionately affected due to limited access to technological infrastructure. Institutional support remains a critical factor in mitigating these challenges. However, many Ghanaian universities lack comprehensive digital support strategies, particularly in providing affordable internet, digital tools, and technical assistance (Ansong et al., 2020). Socioeconomic constraints also play a role, making it difficult for students from low-income backgrounds to afford necessary devices, data, and electricity (Mensah & Anderson, 2022).

Despite some collaborative efforts between educational institutions and telecom companies to offer subsidized internet packages (Kwapong, 2019), these initiatives often fall short of adequately meeting students' needs. Additionally, inadequate training for educators and students and the absence of well-structured learning management systems significantly limits the effectiveness of distance education (Osei et al., 2020). Addressing these systemic issues related to infrastructure, digital literacy, and socioeconomic disparities is critical to improving access to online education for all distance learners in Ghana.

2.2 Challenges distance learners face in accessing learning materials off-campus

Distance learners in Ghana face significant challenges that hinder their ability to effectively access learning materials off-campus. One of the primary obstacles is poor internet connectivity, particularly in rural areas, where slow network speeds and high data costs limit students' ability to engage in online learning (Foli et al., 2019; Ameyaw & Asante, 2016). Many students struggle with unreliable internet services, making it difficult to participate in online discussions, submit assignments, or download necessary course materials. Arthur-Nyarko et al. (2019) further highlight that limited access to digital devices, battery issues with mobile devices, and the absence of institutional support exacerbate these difficulties, restricting students' ability to engage effectively with digital resources.

In addition to technological barriers, distance learners often encounter inadequate study environments and restricted access to library resources. Foli et al. (2019) report that students at Jackson College of Education face challenges such as a lack of quiet study spaces and limited academic resources, which negatively impact independent research and engagement with course materials. Similarly, Huwiler (2015) found that many distance education libraries are not designed to meet the specific needs of remote learners, with limited funding and staffing further exacerbating accessibility issues. Owusu-Ansah and Bubuama (2015) emphasize that many students are either unaware of the digital library services available to them or face challenges in accessing these resources remotely, highlighting a critical gap in institutional support.

The COVID-19 pandemic further amplified these challenges, as students struggled with home distractions, high data costs, and a lack of digital infrastructure necessary for effective online learning (Addae et al., 2022). The hybrid nature of Ghanaian distance education programs, which require both

online participation and in-person attendance, creates additional logistical difficulties for students, particularly those who must travel long distances for face-to-face sessions. Owusu et al. (2024) highlight the psychological impact of these challenges, noting that academic stress and burnout are prevalent among distance learners due to the pressure of balancing studies with work and family responsibilities.

Furthermore, ineffective communication between students and tutors contributes to disengagement and frustration. Poor feedback mechanisms and delayed responses to student inquiries limit the effectiveness of remote learning (Badu-Nyarko & Amponsah, 2019). These communication gaps, combined with insufficient tutorial sessions and difficulties in the registration process, make it more challenging for students to stay motivated and succeed academically. The lack of structured academic support exacerbates the sense of isolation among distance learners, further impacting their overall learning experience.

Socioeconomic factors also play a significant role in restricting access to learning materials. Many students struggle with the high cost of internet data, limited access to digital devices, and the financial burden of balancing academic expenses with personal responsibilities (Amponsah & Badu-Nyarko, 2017). Additionally, Sakyi (2013) found that most distance learners at the University of Cape Coast were unaware of available guidance and counseling services, indicating a broader lack of institutional support in areas such as technical assistance and academic advising. Addressing these systemic issues is essential to ensuring that distance learners have equitable access to the resources necessary for academic success.

2.3 Solutions and support systems for improving off-campus access for distance learners

To effectively address the challenges faced by distance learners, strengthening institutional support systems is crucial. Key measures include upgrading internet infrastructure, providing flexible tuition payment options, and offering comprehensive academic supervision. Additionally, universities should develop peer support networks, invest in digital literacy training, and improve tutor-student communication to enhance engagement with online learning platforms (Amponsah & Badu-Nyarko, 2017).

One effective strategy is the adoption of a Bring-Your-Own-Device (BYOD) policy, as suggested by Arthur-Nyarko et al. (2019). Given the widespread use of smartphones among students, this approach facilitates digital learning while addressing device accessibility challenges. Providing mobile-optimized learning platforms can further mitigate limitations such as small screen sizes and limited storage capacities. Moreover, forming partnerships with telecommunications companies to offer subsidized internet bundles can significantly reduce the financial burden on students. Owusu-Ansah and Bubuama (2015) emphasize the need for improving university library services by increasing awareness of digital resources and ensuring seamless remote access to academic databases.

Institutional support programs designed to reduce academic stress and burnout are also essential. Owusu et al. (2024) advocate for initiatives such as time management training, stress management workshops, and counseling services tailored specifically for distance learners. Foli et al. (2019) highlight the importance of enhancing tutor-student communication through structured feedback mechanisms and interactive online forums to foster engagement. Additionally, ensuring that digital learning materials are regularly updated and easily accessible can significantly enhance the overall learning experience.

A multi-faceted approach is necessary to close the digital divide and promote equitable access to education for all distance learners in Ghana. Owusu-Fordjour et al. (2020) propose increased institutional support, government policies to reduce data costs, and investments in rural internet infrastructure as key solutions. Establishing partnerships between educational institutions and telecommunications companies can also facilitate affordable and reliable internet services, ensuring that all students, regardless of location, have access to essential digital learning resources.

Huwiler (2015) recommends that universities invest in digital literacy programs and actively promote online library services to distance students. Creating tailored marketing strategies can increase awareness and utilization of available digital resources. Alagbelai (2024) further underscores the importance of student support services such as academic advising, financial assistance, and online study groups to help students manage their academic workload more effectively.

Infrastructure upgrades are also necessary to support digital education. Ameyaw and Asante (2016) suggest that universities enhance internet facilities in libraries and collaborate with telecommunication companies to provide subsidized internet packages. Eshun et al. (2020) advocate for the integration of Massive Open Online Courses (MOOCs) into university curricula, allowing students to access flexible and affordable learning opportunities. Addae et al. (2022) emphasize the need for nursing and midwifery training institutions to establish robust ICT infrastructure to ensure reliable internet connectivity. By implementing these solutions, universities can bridge the digital divide and create an inclusive and effective learning environment for distance learners in Ghana.

Ultimately, ensuring the success of distance learners requires a comprehensive approach that combines technological advancements, institutional commitment, and policy interventions. By addressing these systemic challenges, Ghanaian educational institutions can create a more accessible and supportive distance learning environment that meets the needs of all students.

3. RESEARCH METHODS

3.1 Research design

This study used a quantitative research methodology to investigate off-campus access and the difficulties it presents for Ghanaian distance learners. The capacity of a quantitative survey method to gather information from a sizable sample of participants. This is a crucial component in determining

the connections between different constructs connected to collection making it usage appropriate. This approach works well for obtaining opinions from a variety of respondents, giving researchers a thorough grasp of the topic at hand (Creswell, 2018). In order to ensure that the data gathered was representative and thorough, the researchers used surveys to reach a large community of distance learners in Ghana, concentrating on off-campus access and the related difficulties (Ponto, 2015).

Furthermore, quantitative research is renowned for producing accurate and broadly applicable findings, which is essential for investigating the more general patterns in collection development procedures (Bryman, 2016). In order to gather objective and quantifiable data that would allow for the drawing of significant conclusions on the collection development procedures in these institutions, the study was founded on a quantitative research design (Leedy & Ormrod, 2019).

3.2 Study population

The target population for this study consisted both private and public universities in the Eastern corridors of Ghana, thus, distance learners from public and private universities living in the Eastern corridors of Ghana. The justification for population was that both private and public universities in the Eastern corridors engages in distance learning programmes.

3.3 Sampling and sample size

Sampling provides a valid alternative to a census when it would be impracticable to survey the entire population, or when budget constraints or time constraints prevent the researcher from surveying the entire target population for the study (Saunders et al, 2016). Convenient sampling technique was adopted for the study. The study distributed 200 copies to the identified population for the study. Out of the 200 copies, 171 copies were retrieved valid for analysis.

3.4 Data collection instrument

Questionnaire was the instrument adopted for the study. The researchers designed their own questionnaire based on the objectives of the study. The variables were measured using the Likert Scale five-point measurement scale. The questionnaire was divided into sections, section A-demographic while sections B, C & D covered the objectives of the study. Sample of the questionnaire is attached as appendix A.

3.5 Data collection procedure

Convenient sampling was adopted to distribute the questionnaire to the respondents. The researchers distributed the protocols to the students who visit to the library. The respondents were given tags which indicated the specific number to avoid duplication and multiple selection of respondents. Researchers provided boxes at vantage points for the collection of the questionnaire.

3.5 Ethical consideration

The researchers sought permission from the research and quality assurance directorate of the universities in focus to collect the data from the participants. The principles of confidentiality of

information were strictly adhered to. In this instance, no information provided during the period of data collection was divulged, and no participant was forced to provide information and data against their wish (Saunders et al, 2016).

3.6 Data analysis

The data collected was cleaned and sorted out. This was executed to match the objectives of the study. IBM SPSS version 26 data analysis software was used for quantitative data matrices (Ngulube, 2023). Data from survey questionnaires was integrated into themes to get a more comprehensive picture of the results. The results were presented using Tables with frequency and descriptive statistics such as mean and standard deviation.

4. DISCUSSION AND RESULTS

This section deals with the presentation of the results gathered from the respondents. The data collected covered the demographic information, of the study. These were the availability of internet and digital resources for distance learners, challenges distance learners face in accessing learning materials off-campus as well as solutions and support systems that can improve off-campus access for distance learners from Ghana.

Section A: Demographic Information

Table 4.1: Gender of the respondents

Gender	Frequency	Percentage
Male	116	67.8
Female	55	32.1
Total	**171**	**100.0**

Source: Field Data, 2025

Table 4.1 provides a detail breakdown of the gender distribution of the participants. Out of a total of one hundred seventy-one (171) participants, 116 were male and 55 were female. The composition translates to 67.8% male and 32.1% female participants, respectively. The results indicate a higher representation of male participants in the sample.

Table 4.2: Age of the respondents

Age	Frequency	Percentage
18–24	85	49.7
25–34	51	29.8
35–44	24	14.0
45+	11	6.4
Total	**171**	**100.0**

International Journal of Education and Social Science Research

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Vol. 8, Issue.2, Mar-Apr 2025, p no. 257-277

Source: Field Data, 2025

Table 4.2 provides a detail of age of the participants. Out of a total of one hundred seventy-one (171) participants, 85 (representing the age group of 18-24) constitutes 49.7%. This was followed by 51 (representing the age group of 25-34) constituting 29.8% and 24 (thus 35-44 age group) representing 14.0% of the entire population sample came next. At last place was 11 (representing 45+ age group) constituting 6.4% of the entire respondent's population sample. The results indicate the study's population sample featured a lot of participants from the 18-24 age group.

Table 4.3: Educational level of the respondents

Educational Level	Frequency	Percentage
Undergraduate	67	39.2
Diploma	60	35.1
Postgraduate	31	18.1
Others	12	7.0
Total	**171**	**100.0**

Source: Field Data, 2025

Table 4.3 shows the educational level of the participants. Out of a total of one hundred seventy-one (171) participants, 60 participants representing 35.1% had a diploma certificate. This was followed by 67 participants with an undergraduate certificate, representing 39.2%. Participants with a postgraduate certificate were 31, representing 18.1% of the entire participant population sample, and at last place were 12 participants with other certificates, which represents 7.0% of the population sample. The results revealed that participants with undergraduate certificates were more involved in the study.

Table 4.4: Institution type

Institution	Frequency	Percentage
Public University	118	69.0
Private University	53	31.0
Total	**171**	**100.0**

Source: Field Data, 2025

Table 4.4 shows the institution type of the participants of the study. Out of a total of one hundred seventy-one (171) participants, 118 participants representing 69.0% of the entire population sample were from public universities, and 53 participants constituting 31.0% of the entire population sample were from private universities. The results revealed that more participants of the study were from public universities.

International Journal of Education and Social Science Research

ISSN 2581-5148

Vol. 8, Issue.2, Mar-Apr 2025, p no. 257-277

Table 4.5: Location of the participants

Location	Frequency	Percentage
Urban	128	74.9
Rural	43	25.1
Total	**171**	**100.0**

Source: Field Data, 2025

Table 4.5 shows the location of the participants of the study. Out of a total of one hundred seventy-one (171) participants, those that were from urban areas were 128 participants, representing 74.9% of the entire population sample. Participants from rural areas totaled 43, making up 25.1% of the sample. The results indicate that participants from urban areas were higher.

Table 4.6: Having personal device for learning

Personal device for learning	Frequency	Percent
Yes	142	83.0
No	29	17.0
Total	**171**	**100.0**

Source: Field Data, 2025

Table 4.6 is on participants who own a personal device for learning. Out of a total population sample of one hundred seventy-one (171), participants who own a personal device for learning were 142, representing a percentage of 83.0%, while 29 participants, constituting 17.0%, did not own a personal device for learning. The results revealed that those who own a personal device for learning were higher.

Objective One: The availability of internet and digital resources for distance learners

The first objective was on availability of internet and digital resources. The variables that were measured were, reliable internet access for online learning, institution provides adequate online learning, access e-books, journals, and online libraries without difficulty, current internet speed is sufficient for video lectures and live discussions, access to IT support services and comfortable using digital tools. A scale of 1.0–2.0 is less influential, 2.0-3.0 is influential, and 3.0-4.0 is more influential as per the descriptive statistics of the mean values was adopted.

International Journal of Education and Social Science Research

ISSN 2581-5148

Vol. 8, Issue.2, Mar-Apr 2025, p no. 257-277

Table 4.7: Availability of internet and digital resources

Statement	Mean	Std. Deviation
I have reliable internet access for online learning	2.8	1.4
My institution provides financial or technical support to enhance my digital access	2.7	1.4
My institution provides adequate online learning resources	2.7	1.4
I can access e-books, journals, and online libraries without difficulty	2.7	1.5
My current internet speed is sufficient for video lectures and live discussions	2.6	1.4
I have access to IT support services for troubleshooting online learning issues	2.6	1.3
I am comfortable using digital tools for my academic work	2.5	1.4
Total	**18.6**	**9.7**

Source: Field Data, 2025. M = Mean, SD = Std. Deviation

Table 4.7 shows the availability of internet and digital resources. Under this objective, seven variables were measured. Out of the seven variables measured, "I have reliable internet access for online learning" came first with an M of (2.8) and SD of (1.4). At second place was "My institution provides financial or technical support to enhance my digital access" with an M of (2.7) and SD = of (1.4) and was followed by "My institution provides adequate online learning resources" with an M of (2.7) and SD of (1.4). At fourth place was "I can access e-books, journals, and online libraries without difficulty" with an M of (2.7) and SD of (1.5) and at fifth place was "My current internet speed is sufficient for video lectures and live discussions" with an M of (2.6) and SD of (1.4). At sixth place was "I have access to IT support services for troubleshooting online learning issues" with an M of (2.6) and SD of (1.3) and "I am comfortable using digital tools for my academic work" with an M of (2.5) and SD of (1.4) came last. The results revealed that, out of the variables measured, reliable internet access for online learning, institution provides financial or technical support to enhance my digital access and institution provides adequate online learning resources were influential.

Objective Two: Challenges distance learners face in accessing learning materials off-campus

The second objective was on challenges in accessing learning materials off-campus. The various variables measured were, high internet costs limit my ability to access online resources, institution's learning platform is difficult to navigate, I lack access to a quiet study space at home, family and work responsibilities make it difficult to focus on online studies, frequent power outages that affect my online learning, I lack digital skills to effectively use online learning tools and poor network connectivity disrupts my studies. A scale of 1.0–2.0 is less influential, 2.0-3.0 is influential, and 3.0-4.0 is more influential as per the descriptive statistics of the mean values was adopted

International Journal of Education and Social Science Research

ISSN 2581-5148

Vol. 8, Issue.2, Mar-Apr 2025, p no. 257-277

Table 4.8: Challenges in accessing learning materials off-campus

Statement	Mean	Std. Deviation
High internet costs limit my ability to access online resources	2.8	1.5
My institution's learning platform is difficult to navigate	2.7	1.4
I lack access to a quiet study space at home	2.7	1.4
Family and work responsibilities make it difficult to focus on online studies	2.7	1.5
I struggle with frequent power outages that affect my online learning	2.7	1.4
I lack digital skills to effectively use online learning tools	2.6	1.4
Poor network connectivity disrupts my studies	2.5	1.4
Total	**18.7**	**10.0**

Source: Field Data, 2025. M = Mean, SD = Std. Deviation

Table 4.8 focused on the challenges in accessing learning materials off-campus. On this, seven variables were measured. Out of the variables measured, "High internet costs limit my ability to access online resources" ranked first with an M of 2.8 and SD of 1.5. This was followed by "My institution's learning platform is difficult to navigate" with an M of 2.7 and SD of 1.4. At third place was "I lack access to a quiet study space at home" with an M of 2.7 and SD of 1.4, followed by "Family and work responsibilities make it difficult to focus on online studies" with an M of 2.7 and SD of 1.5. In fifth place was "I struggle with frequent power outages that affect my online learning" with an M of 2.7 and SD of 1.4. At sixth place was "I lack digital skills to effectively use online learning tools" with an M of 2.6 and SD of 1.4. The last variable, "Poor network connectivity disrupts my studies," had an M of 2.5 and SD of 1.4. The results revealed that out of the variables measured, "High internet costs limit my ability to access online resources" and "My institution's learning platform is difficult to navigate" were influential.

Objective three: Solutions and support systems that can improve off-campus access for distance learners

The third objective was on solutions and support systems for improving off-campus access. The various variables measured were, offline learning materials should be provided, institution should provide subsidized internet packages for distance learners, institution should offer flexible learning schedules, institutions should set up more regional study centres with better internet access, more digital skills training for distance learners, Government should improve internet infrastructure in rural areas and Scholarships and financial aid should be available for students to purchase devices and internet bundles. A scale of 1.0–2.0 is less influential, 2.0-3.0 is influential, and 3.0-4.0 is more influential as per the descriptive statistics of the mean values was adopted.

International Journal of Education and Social Science Research

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Vol. 8, Issue.2, Mar-Apr 2025, p no. 257-277

Table 4.9: Solutions and support systems for improving off-campus access

Statement	Mean	Std. Deviation
More offline learning materials should be provided for students with limited internet access	2.3	1.3
My institution should provide subsidized internet packages for distance learners.	2.3	1.3
My institution should offer flexible learning schedules to accommodate students with access challenges	2.2	1.2
Institutions should set up more regional study centres with better internet access.	2.2	1.2
There should be more digital skills training for distance learners	2.2	1.2
Government should improve internet infrastructure in rural areas	2.1	1.1
Scholarships and financial aid should be available for students to purchase devices and internet bundles	2.0	1.1
Total	**15.3**	**8.5**

Source: Field Data, 2025.

Table 4.9 focused on the solutions and support systems for improving off-campus access. Various variables were measured. Out of the variables measured, “More offline learning materials should be provided for students with limited internet access” ranked first with an M of 2.3 and SD of 1.3. This was followed by “My institution should provide subsidized internet packages for distance learners” with an M of 2.3 and SD of 1.3. At third place was “My institution should offer flexible learning schedules to accommodate students with access challenges” with an M of 2.2 and SD of 1.2. “Institutions should set up more regional study centres with better internet access” came fourth with an M of 2.2 and SD of 1.2, followed by “There should be more digital skills training for distance learners” with an M of 2.2 and SD of 1.2. At sixth place was “Government should improve internet infrastructure in rural areas” with an M of 2.1 and SD of 1.1. The last variable, “Scholarships and financial aid should be available for students to purchase devices and internet bundles,” had an M of 2.0 and SD of 1.1. The results revealed that, out of the variables measured, “More offline learning materials should be provided for students with limited internet access” and “My institution should provide subsidized internet packages for distance learners” were influential.

4.1 Discussion

4.2 Demographic information

Gender Distribution

The gender distribution of respondents is shown in Table 4.1, with 116 (67.8%) of the 171 participants being male and 55 (32.1%) being female. The data suggests that there was a higher proportion of male participants in the study, which may indicate a gender imbalance in the sampled population, which may reflect broader demographic trends within the institution or study area, and the results may also be influenced by factors like enrolment patterns, accessibility, and interest in the study topic.

Age Distribution

The respondents' age distribution is shown in Table 4.2. The largest age group, with 85 respondents (49.7%), was 18–24 years old. Next in line were the age groups of 25–34, 51 (29.8%), 35–44, 24(14.0%), and 45+ was 11(6.4%). The large number of younger participants indicates that the study's participants were primarily in their early adult years, which may have an effect on attitudes towards digital access, preferred methods of learning, and technological adaptability. The under-representation of older age groups could be a sign of restricted access to online learning environments or decreased interest in the subject matter.

Educational Level

The respondents' educational backgrounds are shown in Table 4.3. Undergraduates made up the majority of 67 (39.2%), closely followed by diploma holders 60(35.1%). 31(18.1%) were postgraduates, while 12 (7.0%) held other credentials. The majority of participants were likely in the early or mid-stages of their academic careers, based on the high percentage of undergraduate and diploma holders. Their expectations from their schools about online learning support, their reliance on the internet, and their needs for digital resources could all be impacted by this.

Institution Type

Respondents are categorised by kind of institution in Table 4.4. The majority, 118(69.0%), were students attending public universities, whilst 53(31.0%) were students attending private universities. The preponderance of participants from public universities may be a reflection of enrolment patterns, educational affordability, and institutional size. The higher participation percentage may be explained by the larger student body at public universities.

Location of Participants

Urban residents are likely to have better infrastructure and internet services, while rural students may face obstacles like limited access to high-speed internet, fewer IT support services, and disruptions due to inconsistent electricity supply. This urban-rural divide could affect access to digital resources, internet connectivity, and overall learning experiences. Table 4.5 shows the respondents' locations with 128 (74.9%) living in urban areas and 43 (25.1%) in rural areas.

Ownership of Personal Learning Devices

The ownership of devices for learning is examined in Table 4.6. While 29(17.0%) did not own personal learning gadgets, a vast majority 142(83.0%) did. According to this, the majority of participants have

direct access to digital learning resources, which is essential for distance learning. The minority who does not own personal devices, however, might be dependent on the resources provided by the institution, which could result in unequal access to digital resources and have an impact on academic achievement.

4.3 Availability of internet and digital resources

With responses scored on a scale of 1.0–2.0 being less influential, 2.0–3.0 being influential, and 3.0–4.0 being more influential, Table 4.7 examines the accessibility of the internet and digital resources. "I have reliable internet access for online learning" had the highest rating (M = 2.8, SD = 1.4), indicating that internet dependability had a moderate impact on students' online learning experiences. "My institution provides adequate online learning resources" (M = 2.7, SD = 1.4) and "My institution provides financial or technical support to enhance my digital access" (M = 2.7, SD = 1.4) came in close succession.

The results show that a major factor in promoting online learning is institutional support. "I am comfortable using digital tools for my academic work" (M = 2.5, SD = 1.4) and "I have access to IT support services for troubleshooting online learning issues" (M = 2.6, SD = 1.3) showed lower mean scores. These findings point to areas that might need more work, like improving IT support services and offering instruction on digital tools to boost students' comfort levels when utilising technology for education. This revelation is not much different from the convection of authors such as (Dzandu & Boateng, 2016), (Amponsah & Badu-Nyarko, 2017) and (Owusu-Fordjour et al., 2020) who share a common understanding that internet and digital resources are very critical for distance learners.

4.4 Challenges in accessing learning materials off-campus

The difficulties students encounter in obtaining educational resources off-campus are examined in Table 4.8. A significant obstacle to digital learning is price, as seen by the problem with the highest rating, "High internet costs limit my ability to access online resources" (M = 2.8, SD = 1.5). "My institution's learning platform is difficult to navigate" (M = 2.7, SD = 1.4) came next, indicating that learning systems need to be made more accessible and user-friendly. "I lack access to a quiet study space at home" (M = 2.7, SD = 1.4) and "Frequent power outages affect my online learning" (M = 2.7, SD = 1.4) were two other noteworthy difficulties. These elements suggest that students' capacity to participate successfully in online learning is greatly impacted by environmental and infrastructure issues. "Poor network connectivity disrupts my studies" received the lowest rating (M = 2.5, SD = 1.4).

It is still in the "influential" range even though it was the least influential challenge, indicating that some students are still concerned about network stability. The result portrays the challenges distance learners encounter, among them was high internet costs, learning platform is difficult to navigate, lack of more accessible and user-friendly, lack access to a quiet study space at home as well as frequent power outages. This finding corroborates the submission of authors such as (Foli et al. 2019) and (Adarkwah, 2021) as well as (Ansong et al., 2020) who claimed that internet cost is a problem for

distance learners. Dzandu and Boateng, (2016) for example raised concerns of the user-unfriendly nature of some learning platforms making it unnavigable too. Similarly, authors such as (Kwapong, 2019) and (Mensah & Anderson, 2022) have documented that frequent power outages are crucial challenge hampering off campus access of distance learners in general.

4.5 Implications of the study

The findings from this study highlight critical implications for digital learning in higher education institutions:

- ✓ *Institution type and resource availability* – Given the study's preponderance of students from public universities, it is probable that these schools face greater issues with digital learning because of their bigger student bodies and potential resource limitations.
- ✓ *Urban-rural digital divide* – According to the survey, there are regional differences in internet access, with rural students encountering greater infrastructural and connectivity issues. To close this digital divide, institutions need to think about location-based interventions.
- ✓ *Device ownership and digital equity* – Accessing digital resources is extremely difficult for the minority of students who do not own personal learning devices, despite the fact that the majority do. Alternative access options, such computer labs and device borrowing programs, must be offered by institutions.
- ✓ *Institutional support and learning efficiency* – Universities are essential to students' performance, as evidenced by the moderate impact of institutional support in digital learning. Effective online learning will be further facilitated by improved financial and technological assistance.
- ✓ *Barriers to online learning* – Students' capacity to learn efficiently online is greatly impacted by high internet charges, platform usability problems, a shortage of study areas, and power interruptions. Improving the digital learning experience requires addressing these obstacles.

5. RECOMMENDATION AND CONCLUSION

5.1 Recommendations

To enhance digital learning access and efficiency, the following recommendations are proposed:

- ➢ *Expand rural digital access* – Universities in Ghana ought to collaborate with corporate organisations to assist through grants and funding for internet access and establish learning centres in remote regions.
- ➢ *Introduce digital equity programmes* – Universities in Ghana should increase access to on-campus computer facilities and set up loan programs for students without personal learning devices.
- ➢ *Strengthen institutional it supports services* – To improve the user experience on digital platforms and help students with troubleshooting, universities should make significant investments in strong IT support systems.

- *Reduce internet costs for students* – In order to provide students with discounted data packages, educational institutions had to establish alliances with internet service providers.
- *Address environmental and power-related barriers* – In addition to creating study places on campus with alternate power sources for students experiencing disruptions at home, institutions can promote a dependable electrical supply in impacted communities.

5.2 Conclusion

The study has underscored the significance of distance learning irrespective of the location of the student. The research revealed the numerous challenges that confront distance learners in both private and public universities in Ghana. Among the challenges of critical effect are high internet data cost, learning platform being difficult to navigate, lack of more accessible and user-friendly, access to a quiet study space at home as well as frequent power outages. This suggests that the distance learners are in a situation that requires special attention. The study identifies that infrastructure and demographic elements affects digital learning in tertiary educational settings.

Students' participation with online learning is influenced by educational levels, gender disparities, and age-related digital adaptation. Learning experiences are further impacted by the type of institution, location, and availability of personal learning gadgets. The results show that although internet connectivity is rather dependable, obstacles such exorbitant prices, platform usability, and environmental factors make learning less efficient. To ensure that students have fair and successful digital learning experiences, it will be essential to address these issues through focused interventions, better institutional support, and upgraded digital infrastructure in Ghana.

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