
Distance Education Students' Perception of Online Learning during Covid-19 Era: A Study of Selected Campuses and Learning Centres of Valley View University

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Abstract

The aim of this study is to determine distance education students' perceptions of online learning during the COVID-19 era. The descriptive design was employed to examine students' views on online learning. The population of the study was 876 students from all the campuses and learning centres of Valley View University (VUU) across the country. The Yamane (1967) sample size calculation formula was used to sample the respondents. The questionnaire was the only data collection instrument used in this study. The researcher sent copies of the questionnaire to the participants via Google forms. The IBM- Statistical Product and Service Solutions (IBM-SPSS) was used for the analysis. The study found that the perceptions of the majority of the students toward online learning were negative. The results revealed that smartphones were ranked first with a value of (RII = 0.659) as the devices used by students during online learning classes. The findings indicated that students found it difficult to access internet services when they were at home, with a value of (RII= 0.644). The study concluded that these findings have the potential to assist University Management in addressing all issues confronting distance learning students. It is suggested that the University's Administration should work with the various telecommunication networks to provide distance learning students with free internet data while they are at home to enable them to fully participate in online learning classes.

Keywords: COVID-19; online learning; distance education; Valley View University
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Introduction

The Corona Virus outbreak threw off the global academic calendar completely. The advent of COVID-19 forced schools to remain temporarily closed until further notice. The sudden closure of schools disrupted academic activities such as the matriculation of newly admitted students, examination activities, graduations, and other programmes. The pandemic impacted 1.6 billion students in over 190 countries and all continents, according to the United Nations (UN, 2020). Students had to join their parents at home and be self-quarantined as a result of the closure of schools, from basic schools to universities (UNESCO, 2020). To prevent the Virus from quickly spreading to staff and students, an online system was quickly adopted by most universities as a result of that sudden disruption (Gupta et al., 2020; Lederman, 2020; Lee et al., 2021). There was a massive change in educational sectors, both local and international. In spite of the pandemic, universities were expected to provide education to students worldwide (Maheshwari, 2021). Implementation of



distance learning was used to maintain educational continuity while reducing personal contact and the spread of the Virus. Distance education therefore started in many higher educational institutions globally, with numerous limitations and complexities (Rasmitadila et al., 2020). This development has led to the adoption of information and communication technologies (ICTs) in various academic institutions for learning. Academic institutions in Ghana were all closed down on March 15, 2020, upon the orders of the Government of Ghana (Cromwell, 2020).

Valley View University had no choice during the rapid spread of the COVID-19 pandemic but to use information and communication technology (ICT) to deliver course content to learners across all geographical locations. The decision to convert traditional modes of teaching and learning into an online system was not limited to one country or continent. It was a global resolution, as asserted by Bozkurt et al. (2020), and Chick et al. (2020), that the unexpected change from face-to-face education to distance learning during the COVID pandemic was a decision that has been made by almost all countries around the world. Dhawan (2020) defined online learning as the use of network-connected devices, allowing students to learn at any time, from any location, and via any medium. It is assumed that students can learn from anywhere and interact with teachers and other students. Rapanta et al. (2020) referred to online learning as learning that is enabled by the internet, including the delivery of content, the management of learning experiences, and collaboration among experts, content creators, and a networked community of learners. Online learning, as defined by Kundu (2018), refers to the distribution of instructional materials through electronic means like CDs, television, video/audio tape, satellite broadcast, extranets, intranets, and the internet. When these definitions are combined, online learning can be attributed to the internet-based delivery of course material to students using internet-enabled devices such as laptops and smartphones. The importance of an online learning system extends beyond the borders of teaching and learning, as it provides access to learning resources without time or location restrictions (Al-Fraihat et al., 2020).

The COVID-19 pandemic abruptly halted academic activities and compelled policymakers, directors, and the management of various institutions to devise new strategies to combat the spread of the virus. The shift from face-to-face (traditional) teaching and learning modalities to online or web-based learning was one of the significant transformations brought about by the COVID-19 pandemic (McQuirter, 2020; Yudiawan et al., 2021). Tamrat and Teferra (2020) asserted that online learning is an alternative approach that relies entirely on the internet and other technologies without requiring students to be in a physical classroom. During the times of COVID-19, using technology in learning was the ultimate choice. During the time of COVID-19, using technology in learning was the ultimate choice. However, it is presumed that most African universities face challenges in acquiring ICT facilities with their limited resources. Preez and Grange (2020) stated that only one-third of the African population has access to broadband connections. The impact of the COVID-19 crisis on sub-Saharan African education systems is, therefore, worth writing about (Adarkwah, 2020; Anifowoshe et al., & David, 2020; Azu, et al., 2020). The emergence of COVID-19 has subjected directors, policymakers, stakeholders, and university management to adopting online teaching and learning to maintain academic activities. However, a preliminary investigation by the researcher revealed that during the commencement of online learning most learners considered online learning boring and expressed dissatisfaction with the system due to their unpreparedness. This affirmed an earlier revelation by Gelles et al., (2020) that students felt unprepared for the online learning.

Factors such as the environment, poor internet connections, financial challenges, and psychological trauma can inhibit the smooth implementation of online concepts, as indicated by Aguilera-Hermida (2020), Bhagat and Kim (2020), Chua et al. (2020), Meulenbroeks (2020), Ramij

and Sultana (2020), and Wijaya et al., (2020). The National Union of Ghana Students (NUGS) petitioned the Ministry of Education on problems they faced in online learning. Their appeal highlighted some challenges, such as the cost of internet bundles; the lack of an appropriate framework for implementing an e-learning system, and the inability of students to obtain learning tools (Anyorigya, 2020). This study examined distance education students' perceptions of online learning during the COVID-19 era from some selected campuses and learning centres of VVU. Even before the COVID-19 pandemic, the VVU ran a hybrid system of learning for distance education students. The Centre for Adult and Distance Education (CADE) fully adopted the online learning mode during the unexpected arrival of COVID-19. The introduction of the online learning system generated heated debate, and different views emerged from various quarters as to whether to adopt online learning or not. However, it was a hasty and critical decision for University Management to adopt an online mode of teaching and learning that was not previously planned. Online learning can reduce educational variation by extending access to cost-effective and flexible education (Maphalala & Adigun, 2021). Although researchers like Diez et al., (2021), Abbasi et al. (2020), Alameri et al. (2020), Chung et al. (2020), Fauzi et al., (2020), McQuirter (2020), Muhammad and Kainat (2020), Oyediran et al. (2020), Shetty et al. (2020) have done related studies on this topic in various academic institutions, they did so without directing their studies to VVU. For instance, Aboagye (2020 b), Adarkwah (2020), and Agormedah et al. (2020) have conducted similar studies on online learning at higher educational institutions in Ghana, but they excluded VVU. Murugesan and Chidambaram (2020) conducted a similar study during the COVID-19 pandemic at VVU, which also failed to examine the perceptions of VVU distance education students during the COVID-19 pandemic. In this context, this study aimed at investigating the perceptions of VVU distance learners during the COVID-19 pandemic and fill the vacuum created. The following were the research questions that the study sought to address: What is the perception of distance education students of online learning at VVU?; What tools do distance education students' use for e-learning classes at VVU?; What are the challenges associated with e-learning at VVU?

Context of the Study

Valley View University is a private university owned by the Adventist Church. The West African Union Mission of Seventh-day Adventists founded the University in 1979. In January 2006, the President of the Republic of Ghana, J. A. Kufuor, granted Valley View University a presidential charter. Valley View University became the first private institution in Ghana to be granted national accreditation. The main campus of the University is located at Oyibi in the Greater Accra Region of Ghana. The University has three (3) campuses and three (3) learning centres. The Oyibi, Kumasi, and Techiman campuses are located in the Greater Accra, Ashanti, and Bono East regions respectively, whereas Swedru, Takoradi, and Tamale are learning centres. The University runs courses in Computer Science, Development Studies, Nursing, Education, Business Administration, Biomedical Equipment, Theological Studies, Communication Studies, and Information Technology programmes. The University has a student population of about 6,119 (Valley View University, Admissions and Records Office, 2022).

Literature Review

Students' Perceptions of Online Learning

The decision by various educational institutions to change from traditional learning to online education was not designed to distract the academic calendar. The sudden decision was to reduce human contact and lessen the rapid spread of the virus within the framework of security protocols, even though the management of various institutions envisaged some challenges. Physical and psychological factors can influence learners' active participation in online education in either a positive or negative way. A study at the University of Mindanao Digos College discovered that students had positive and negative experiences with asynchronous instruction (Diez et al., 2021). Shetty et al. (2020) investigated university students' attitudes toward online learning during the COVID-19 crisis in India. Their findings revealed that students had favourable attitudes toward online learning. Shetty et al. (2020) stressed further that online learning allows students to maintain their academic interest and growth during the pandemic, despite a lack of face-to-face interactions, socialisation, a distraction from social media, and issues with technological challenges.

Students' readiness, competence in using ICT facilities, and level of training may significantly impact their use of technology in learning. Students' levels of acceptance of a new system may be influenced by their perceptions, either positive or negative. Individuals' perceptions of an object affect how they react to a situation. Both negative and positive perceptions may influence learning. The popularity of the internet and the proliferation of various technologies in this generation might have necessitated the adoption of online teaching and learning around the globe, whether in private or public institutions. Abbasi et al. (2020) investigated students' perceptions of e-learning at Liaquat Medicine and Dental College during the lockdown. According to their findings, 296 (77.4%) of 382 respondents had a negative perception of online learning, while 86 (23%) felt that online learning had little influence on their studies. A sizable proportion of respondents revealed that they preferred face-to-face learning. The above is evidence that certain physical elements, emotions, and motivation are vital factors influencing students' perceptions of a new learning concept. Students' opinions are very important in higher education institutions.

Learning Devices used by Students to Access Online Courses

The emergence of the COVID-19 pandemic has given a certain degree of prominence to the concept of online learning, even more than before. Almaiah et al., (2020) claimed that online learning devices are a crucial part of the pandemic fight. According to the authors, online learning systems can provide educational institutions with the skills necessary to manage, plan, deliver, track, and teach in the midst of the COVID-19 pandemic. According to Abbasi (2020), out of 382 respondents, 289 (76%) used mobile devices, while 81 (21.2%) used laptops. Tablets accounted for 9 (2.4%) while computers accounted for 3 (0.8%). Shim and Lee (2020) conducted a study in South Korean universities on college students' experiences with emergency remote teaching due to COVID-19. Their findings revealed that laptops were the most popular learning tools with 69.82%, followed by desktop computers with 15.44%, while phones and iPads accounted for 8.29% and 6.45%, respectively.

During the COVID-19 pandemic, the government of South Africa supplied university students with over 700,000 brand-new laptops to help them fully participate in online learning

(Businesstech, 2020). Malaysian students were provided with 30 GB of free data per month to support online learning (Ramli, Majid, & Badyalina, 2020). Muthuprasad et al. (2020) conducted a similar study in India and discovered that most undergraduate Agricultural students preferred smartphones, followed by laptops, tablets, and desktop computers. Edelhauser and Lupu-Dima (2020) surveyed 200 Romanian undergraduate and graduate students and discovered that most students used smartphones for online learning during the COVID-19 lockdown. A similar study conducted in Nepal by Nepal et al. (2020) discovered that 226 medical students were using smartphones during the COVID-19 pandemic lockdown. Various studies carried out in Ghana by Adarkwah (2020), and Agormedah et al. (2020) revealed that students lacked access to digital learning devices and high-speed broadband.

Challenges Associated with Online Learning

The concept of online education is based fully on essential facilities, devices, or tools; anything less may hinder its implementation. The successful implementation of online learning thrives in an environment that has all the requisite technology. Several studies have been conducted about the challenges associated with online learning. Among these are studies carried out by Adarkwah (2020), Oyediran et al. (2020), Ngari and Ndung'u (2020), Tamrat and Teferra (2020), Mengistie (2020), and Mabeya (2020). Problems with modern technology include issues with downloading, installation, logging in, audio and video issues, and a variety of other issues. Students occasionally find online instruction to be uninteresting and monotonous (Dhawan, 2020). In Ghana, Adarkwah (2020) listed challenges such as lack of electricity, users' prior knowledge, difficulty using learning devices, and lack of internet access. Muftahu (2020) opines that African universities are facing ICT challenges such as a lack of laptops, lack of supervision of online learning, and internet access. According to Aboagye (2020), the most difficult factor for students in the COVID-19 era was access, which included costly Internet data, unstable internet connectivity, incompatible smartphones and laptops. Ismail et al. (2020) indicated that students in Malaysia were not ready for online learning due to poor internet services and infrastructure, a poor home-based learning environment, a dearth of online resources, a lack of student-teacher interaction, and a lack of IT skills.

Sarpong et al., (2022; Agormedah et al. (2020) conducted studies on the perception of university students in Ghana of online teaching and learning during the COVID-19 pandemic and discovered difficulties such as poor network connectivity, high cost of Internet data, lack of structured teaching schedule, unstable power, and lack of ICT directorate infrastructure support. According to Abdullahi et al., (2020), students in Nigeria complained about insufficient data bundles to access online classes. Mengistie (2020) established that the high cost of internet services hampered the introduction of online learning in Ethiopia. During the COVID-19 era, Dube (2020) identified problems impeding online learning systems among students from rural communities in South Africa. The findings revealed challenges such as poor internet connection or network availability, a shortage of online learning devices, closed internet cafés, lack of computer skills, and expensive internet data. It is clear from the above that students from various educational, economic, sociocultural, racial, and ethnic backgrounds encountered multiple factors in an online learning environment. Hence, their exposure to ICT devices, abilities, and skill levels may differ.

Methodology

This study investigated the perceptions of distance education students regarding online learning during the COVID-19 pandemic. The study used a descriptive survey approach to gather data on the topic. The design was appropriate because it provided several ways of selecting participants, collecting, analysing, and interpreting data (Creswell, 2014). The design also helps a researcher reach out to a large population (Ponto, 2015). The respondents were all undergraduate distance education students selected from different campuses and learning centres of Valley View University (see Table 1). The reason for choosing undergraduate distance students was that the students were geographically dispersed and therefore could not attend their normal three-week interval tutorials which had hitherto been conducted face-to-face. Moreover, these students had never participated in any online learning before.

Table 1: Population by Campuses

Campus	Population
Accra	246
Kumasi	208
Swedru	23
Takoradi	47
Tamale	145
Techiman	207
Total	876

Source: Field data, 2021

The study population consisted of 876 students, from which 292 were selected as a sample size using the Yamane (1967) sample size calculation.

This formula helped the researcher to determine the sample size. Thus; $n = \frac{N}{1 + N(e)^2}$

Where n = sample size; N = population; e = error of margin (it could be 0.10, 0.05, or 0.01).

$$\begin{aligned} \text{Therefore; } n &= \frac{876}{1 + 876(0.05)^2} \\ &= \frac{876}{1 + 876(0.0025)} \\ &= \frac{876}{1 + 2.19} \\ &= \frac{876}{3.19} \\ &= \frac{876}{3} = 292 \end{aligned}$$

Hence, the sample size for the study was 292.

The researcher used a structured questionnaire as the instrument for data collection. Researchers such as Ndongmo et al. (2017), Ozbal and Eski (2019) have argued that collecting primary data for a survey study using a questionnaire is reliable. The Admissions and Records Office of the University provided the researcher with a list of all undergraduate distance students. This list served as the sampling frame from which respondents were chosen to participate in this study. The study used a five-point Likert scale to gather the students' opinions regarding online education. The four-point Likert scale shows one being very low and five being very high: never, rarely, sometimes, often, and always. The students were invited to take part in the study through their various WhatsApp groups with a link to the questionnaire on Google forms. The administration and collection of copies of the questionnaire took four weeks. For the purposes of cleaning and analysing the data, the responses

were imported into IBM- Statistical Package for Social Sciences (SPSS) version 21.0. Of the 292 copies of the questionnaire distributed, 268 were correctly filled and retrieved. This represents a response rate of 92%, which is deemed highly acceptable for proceeding with the analysis.

Results

This study investigates distance education students' perception of online learning and its impact on students' academic performance at VVU.

Demographic Profiles of the Respondents

The respondents were asked to indicate their gender, educational level, and age. Table 2 displays the results.

Table 2: Gender of Respondents

Students n = 268		
Gender	Frequency	Percentage (%)
Male	147	54.9
Female	121	45.1
Total	268	100
Age	Frequency	Percentage (%)
19 -24	42	15.7
25-30 years	107	39.9
31-36 years	65	24.3
37- 42 years & above	54	20.1
Total	268	100
Level	Frequency	Percentage (%)
100	69	25.7
200	61	22.8
300	73	27.2
400	65	24.3
Total	268	100

Source: Field data, 2021

According to Table 2, 147 (54.9%) of the respondents were males, while 121 (45.1%) were females. Furthermore, Table 2 shows that 107 (39.9%) fell between the ages of 25 and 30, while 65 (24.3%) were between 31 and 36, and 54 (20.1%) were in the age bracket of 37 to 42 years and above. Concerning levels, 73 (27.2%) of the respondents were at level 300, while 69 (25.7%) were at level 100. 65 and 61, representing 24.3% and 22.8% respectively of the total, were at level 400 and 200, respectively.

Students' perceptions of online learning

Students are the main stakeholders in the educational framework. The successful implementation of online learning systems depends on the student's level of acceptance. Objective one of this study was to determine students' perceptions of e-learning. Table 3 shows their responses regarding their perceptions of online learning systems.

Table 3: Students' Perception of Online Learning

Students' perception of online learning	SA	A	D	SD
Online learning is the preferable choice	77 (28.7%)	85 (31.7 %)	4(1.5%)	102 (38.1%)
Online learning will reduce financial challenges over the face-to-face method	70 (26.1%)	79 (29.5%)	64 (23.9%)	55 (20.5%)
Access to the Internet is difficult, and this affects learning	93 (34.7%)	56 (20.9%)	52 (19.4%)	67 (25%)
It is much easier to use online learning facilities than face-to-face.	60 (22.4%)	53(19.8%)	68 (25.4 %)	87(32.4%)
Online learning will be useful for academic improvement	54 (20.1%)	65 (24.3%)	88 (32.8 %)	61(22.8%)
Online learning is preferred to the face-to-face method	50 (18.7%)	64 (23.9%)	69(25.7 %)	85(31.7 %)
Internet use has a positive impact on studies	48(17.9 %)	90 (33.6%)	73 (27.2 %)	57(21.3 %)

Note: SA=Strongly Agree; A=Agree; D=Disagree; SD= Strongly Disagree

Source: Field data, 2021

Of the 268 respondents, 102 (38.1%) strongly disagreed that online learning was the preferred choice, while 85 (31.7 %) agreed. Regarding internet access, 93 (34.7%) respondents strongly agreed that accessing the internet during online classes was difficult, while 67 (25%) strongly disagreed. 90 (33.6%) of the respondents agreed that internet use positively impacted them, while 73 (27.2 %) disagreed. To determine whether or not online learning would benefit students' academic improvement, 88 (32.8%) of the respondents disagreed, while 65 (24.3%) agreed that online learning would improve their academic performance. Based on these results, one can confidently conclude that most students perceive online learning negatively.

Learning Devices Used in Online Learning

The Relative Importance Index (RII) was used to rank respondents' views according to their preferences for the learning devices they used during online learning. Tables 5 and 6 present the responses. The survey uses a scale of 1 to 5, which explains the minimum value of 1 to the highest value of 5; thus, 1 = low, 2 = very low, 3 = moderate, 4 = high, and 5 = very high. The Relative Importance Index (RII) was calculated as follows:

$$RII = \text{weighted sum } (W1 + W2 + W3 + W4 + W5) / A \cdot N$$

$$\text{Relative Importance Index: } \frac{\sum w = W1 + W2 + W3 + W4 + W5}{A \cdot N}$$

Where:

W: Weighting assigned by each respondent on a scale of 1 to 5. Hence one is the lowest, and five is the highest.

A: Highest weight (in this case, 5 is the highest).

N: Total number of respondents.

$$\text{Hence: } (36 \times 1) + (53 \times 2) + (47 \times 3) + (60 \times 4) + (72 \times 5) = 36+106+141+240+360 = 883 \\ = 883 / 268 \times 5 = 1340; 883/1340 = 0.659; RII = 0.659.$$

Table 5 displays the preferences and rankings of the tools used for online learning classes among distance education students. Table 5 shows that the top devices used in online learning classes were smartphones, ranked first with a value of (RII = 0.659), followed by laptops with the second highest (RII = 0.637), whereas tablets and desktop computers ranked third (RII = 0.623) and fourth with a value of (RII = 0.610) respectively.

Table 4: Learning Devices Used in Online Learning

Smartphones	36	53	47	60	72	0.659	1st
Laptops	45	55	73	51	44	0.637	2nd
Tablets	61	33	46	70	58	0.623	3rd
Desktop computers	50	61	45	49	63	0.610	4th

Source: Field data, 2021

Note: 1 = low; 2 = very low; 3 = moderate; 4 = high; 5= very high.

Challenges Associated with Online Learning Classes

The fifth research question was to find out some of the challenges the students faced in online learning. This section ranked the difficulties using a relative importance index.

Table 5: Challenges associated with Online learning classes

Tools	1	2	3	4	5	RII	Rank
Difficult to access internet services when at home	46	53	39	56	74	0.644	1st
High data costs when at home	45	70	25	62	66	0.625	2nd
Unsteady power supply at home	55	43	44	69	57	0.622	3rd
Lack of ICT facilities	53	62	40	48	65	0.607	4th
Lack of face-to-face interaction with lecturers	36	48	51	64	69	0.604	5th

Source: Field data, 2021

Note: 1 = low, 2 = very low, 3 = moderate, 4 = high, and 5 = very high.

Table 5 ranks the difficulties associated with online learning classes. According to the findings, poor internet services were the most significant challenge, ranking first among the challenges (RII = 0.644). The high cost of data ranked second with a value of (RII = 0.625), and an unstable power supply came in third with a value of (RII = 0.622). The lack of ICT facilities ranked fourth with a value of (RII = 0.607), and the lack of face-to-face interaction with lecturers came in fifth with a value of (RII = 0.604) being one of the challenges. From the findings, it can be concluded that issues of poor internet service, high data costs, unstable power supply, and lack of ICT facilities were the hindrances impeding online learning.

Discussion

Students' Perception of Online Learning

The study aimed at investigating distance education students' perceptions of online learning during the COVID-19 pandemic and focused on VVU. The study has established relevant results that may help the University Management address some of the challenges impeding online learning.

The results showed that 102 respondents, (38.1%) strongly disagreed with the statement that online learning was the preferred option, while 85 (31.7%) agreed with the statement that it was a preferred choice. This finding contradicts Shetty et al. (2020) that students have positive perceptions of online learning despite dissatisfactions, such as lack of face-to-face interactions, lack of socialisation, distraction from social media, and technological challenges. However, these findings support Abbasi et al. (2020) at Liaquat Medicine and Dental College, which discovered that 296 (77.4%) of 382 respondents had a negative perception of online learning, while 86 (23%) believed that it had little influence on their studies. This negative perception of online learning systems among students may have resulted from their exposure to traditional learning modes (face-to-face).

Learning Tools and Devices Used by Distance Students

Another objective of this study was to find out the kinds of learning tools and devices used by distance education students. The findings revealed that most students preferred smartphones and laptop computers over all other learning tools or devices. These findings support those of Nepal et al. (2020) and Edelhauser and Lupu-Dima (2020), who discovered that during the COVID-19 lockdown, most students preferred smartphones for online learning. Nonetheless, these findings contradict previous research by Shim and Lee (2020) at South Korean universities that laptops were the most popular learning tools with 69.82%, followed by desktop computers with 15.44%, while phones and iPads accounted for 8.29% and 6.45%, respectively.

Challenges Associated with Online Learning

Online learning and its associated challenges are likely to impede the system's smooth implementation in institutions of higher learning. Obstacles hampering online learning must be heeded and addressed to enhance online learning. Poor internet service was the most problematic factor, followed by high data costs and an unstable power supply. These findings support Dube (2020), and Ramli et al. (2020), whose study revealed poor internet connection, unavailability of network, expensive access to internet services, and a scarcity of online learning devices that inhibit online studies. Their study also found internet café closures, lack of computer skills, and expensive internet data or bundles as factors that prevent students from fully participating in online learning classes. It is evident from the results that online learning cannot succeed without Management of VVU paying adequate attention to the perceived challenges. These barriers may give the impression that online education cannot replace face-to-face education.

Conclusion

The findings revealed that distance learning students had negative perceptions toward the introduction of online learning, which was necessary during the COVID-19 pandemic. Online learning in some form of another is likely to continue even after HEIs (higher education institutions) resume "normal" operations. It is therefore important that students enrolled in distance education must be taught how to use online learning systems and encouraged to embrace the use of technology. A few obstacles were identified, including the inability to access internet services while at home, high data costs, an unstable power supply, and the lack of ICT facilities. The study also established that smartphones, laptops, tablets, and desktop computers were the most commonly used devices during online learning. In general, this study's findings would provide University Administrators and policymakers with an opportunity to assist in addressing some hindrances to online learning. The findings of this study would serve as a foundation for future research and insights into academic institutions in Ghana and beyond.

Implications of the study

It is expected that the results of the study would help the Management of VVU design online learning courses and offer solutions to the challenges identified in the study. Consequently, this study's findings would add knowledge to the existing literature. It would also help policymakers, managers, and university management meet all the challenges related to online education and improve the system. This study would shed more light on the importance of incorporating technology into learning.

Limitations and Directions for Future Studies

The first limitation of this study is that it used only one private university with a smaller sample size; therefore, the findings could not be generalised to all universities. Secondly, this study focused solely on distance learners and employed only a quantitative research approach. Using a larger sample from Ghana's private and public universities is suggested for future research. To gain a deeper understanding of the phenomenon, a mixed-method or longitudinal study can also be carried out in future studies. This study begins a new chapter in related research in various domains.

Recommendations

All the learning centres and campuses should have appropriate internet services, which can be used to facilitate online learning. Ways to motivate students to participate in online learning in its widest form can also be explored. The Management of VVU should collaborate with the Ghana Education Trust Fund (GET Fund) to help deprived students acquire the relevant devices, such as smartphones, laptops, tablets, and desktop computers, for online learning. The study recommends that Management should find contingency measures for future cases that may disrupt academic work. It is suggested that the University's Administration should work with the various telecommunication networks to provide all students with free internet data while they are at home to enable them to fully participate in online learning classes. It is a shared responsibility for distance learning students, University Management, and all stakeholders to collaborate and make this concept of education successful.



Future research could employ a mixed method and broaden its scope to investigate lecturers' attitudes toward online education. Future research could look at more than one university to determine the challenges of online teaching and learning.

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