



## Attitudes of private university undergraduate students` towards Electronic Learning (e-learning): A case study of Valley View University

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### ABSTRACT

The integration of technology within higher education has grown significantly due to its flexibility, which permits learners to retrieve course content and engage in academic activities from anywhere, often at their own pace. The study aimed to assess learners` attitudes at Valley View University (VUU) towards the e-learning system. The study adopted a descriptive survey technique. The target population was 296 undergraduate students at the VUU's Oyibi campus. Copies of the questionnaire were deployed as the only data collection instrument for the study. The analysis found that many learners exhibited a negative disposition regarding the online education. Students could engage with their peers on the learning platform (Online Forum Learning Platform, OFLP) to share information and discuss issues about their studies, according to the findings. However, students occasionally faced challenges submitting assignments and downloading documents from the platform due to unstable internet connectivity. The study recommends periodic training opportunities for learners to enhance their ability to navigate e-learning platforms effectively. The study suggests promptly addressing internet-related issues to cultivate a favourable perception of e-learning among learners. For students' studies, regular ICT staff availability is critical. This helps them meet their IT needs, particularly when engaging with e-learning platforms and tools.

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## **INTRODUCTION**

Globally, education has become synonymous with personal achievement and national development, playing an essential role across various sectors of human endeavour. The emergence of the internet and other technologies has led to a significant evolution in traditional approaches to education. E-learning encompasses a range of academic approaches that utilise digital technologies to deliver instruction and facilitate learning (Singh & Thurman, 2019). Electronic learning, also known as virtual education, is an educational approach that eliminates the requirement for direct, in-person engagement between learners and teachers in a traditional classroom setting. Instead, the internet assumes a pivotal role as the primary medium for educational activities (Stern, 2018; Jamil & Hamre, 2018).

The survival of the e-learning concept is heavily dependent on the availability of ICT devices. The online learning environment incorporates a diverse array of asynchronous and synchronous tools to facilitate effective learning and teaching (Bdiwi et al., 2019). Students' attitudes and perceptions regarding e-learning are of utmost importance throughout all stages of implementation, despite being the primary beneficiaries. Implementing online learning promotes self-reliance and reduces students' dependence on teachers' support (Kumi-Yeboah, 2017).

The practicality of online learning lies in its accessibility from any location and at any time, offering individuals flexibility, speed, time savings, cost reduction, accessible learning opportunities, and a convenient educational experience (Silverman & Hoyos, 2018; Naved et al., 2017; Clark & Mayer, 2016; Tarhini et al., 2016). The university has made significant investments in e-learning initiatives to enhance education quality and cater to the changing needs of students. The preliminary investigation by the researchers revealed that some learners are not comfortable with the OLFP, despite its benefits. Other researchers have conducted several related studies on this subject, including Elik and Uzunboylu (2022), Abbasi (2020), Akcil and Bastas (2020), Hamilton et al. (2020), and Wyse et al. (2020). In Ghana, Afful and Boateng (2023); Arkorful and Abaidoo (2015); and Kumi-Yeboah (2017) have all conducted similar studies on e-learning in various public institutions from different perspectives. However, none of the researchers has focused on students' attitudes concerning online education at VVU; this motivates the current research study.

## **PROBLEM STATEMENT**

Currently, online education has become a significant method of educational delivery, offering benefits that traditional classroom settings may lack. However, the success and acceptance of the systems can vary greatly depending on students' attitudes toward them. The VVU has integrated e-learning mode into its academic programmes, so there is a need to understand how undergraduate students perceive and respond to these digital learning environments. Despite the growing prevalence of online modes, there remains a notable deficiency in empirical studies at VVU about learners' attitudes regarding e-learning. There exists a lack of thorough understanding of how variables such as perceived value, ease of access, and overall satisfaction affect student engagement and performance in e-learning contexts. It will identify the factors influencing students' perceptions and the obstacles they encounter, as well as assess the degree of impact on their attitudes toward their studies.

Again, understanding these factors is crucial for developing strategies that can enhance the efficacy of online initiatives and enrich the overall educational experience. This also aims to bridge the gap in research in the area, particularly at VVU. This study will address the knowledge gap regarding undergraduate students' attitudes toward online learning at VVU.

## **OBJECTIVES**

1. To ascertain learners' attitudes regarding online education.
2. To determine learners' perceptions of online platforms.
3. To examine the perceived simplicity of online platform.

## RELEVANCE OF THE STUDY

The integration and acceptance of online learning in academic environments are significant. The study will identify several domains that need improvement, such as tackling technical difficulties, strengthening student support initiatives, and improving online resource availability. These insights are significant for the growth of the online learning model and the enhancement of the overall educational experience. The results of this research will provide valuable insights that can support students and improve their overall concept of learning.

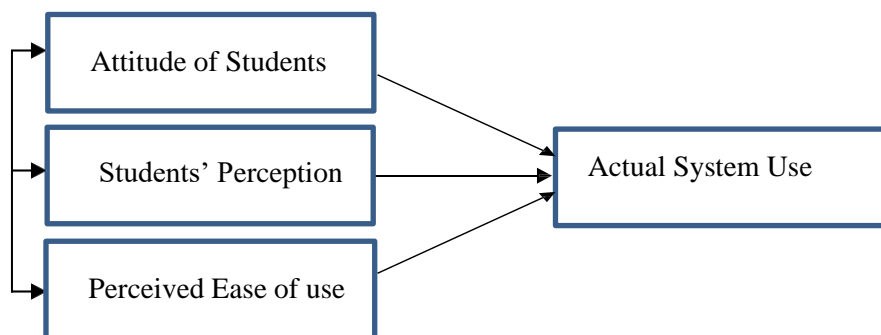
## REVIEW OF RELATED LITERATURE

### Theoretical framework

The study used the Technology Acceptance Model (TAM). Davis (1989) proposed this model, which derives from Fishbein and Ajzen's Theory of Reasoned Action (TRA; 1975). According to this theory, individuals' attitudes toward the behavioural and the subjective norms influencing them determine their behavioural intentions. TAM simplifies the TRA by highlighting two core aspects—Perceived Ease of Use (PEOU) and Perceived Usefulness (PU)—which play a crucial role in shaping users' attitudes and their intentions to engage in specific behaviours.

### Relevance of TAM to the study

In the domain of online learning, the TAM is particularly pertinent, given its emphasis on identifying the factors that influence users' willingness to embrace technology. TAM provides insights into how students' views on technology use impact their willingness to accept and adopt these educational tools. TAM helps identify key determinants that influence whether students are likely to accept and continue to use e-learning platforms. Furthermore, the user-friendly nature of the platform plays a crucial role in influencing users' readiness to adopt and consistently engage with it. TAM demonstrates that several critical factors, including attitude, perception, and the simplicity of the system, significantly affect students' use of technology. This model emphasises that perceived use and perceived usefulness are central in determining individuals' attitudes toward technology adoption (Davis, 1989). Students are more inclined to adopt an e-learning platform if it is stress-free or effortless to use. TAM served as a framework to analyse the challenges faced by university management in the implementation of online education and its subsequent influence on students' adoption.



Source: Davis (1989)

Figure 1. Technology Acceptance Model

**Students' attitude:** According to the model, a user's inclination to adopt new technology is affected by their perception of its usability and simplicity of operation.

**Students' perceptions:** Their perceptions regarding the practicality of online studies play a crucial role in determining their overall acceptance of this mode of learning.

**Perceived use:** refers to the learner's belief that a system can operate with a high degree of simplicity and minimal effort on the part of the user. The model posits that the perceived use is a crucial determinant influencing individuals' behaviour towards the acceptance of new technologies (Davis, 1989).

### **Attitudes of Students' Toward Online Education**

Factors such as the learning environment, learner orientations, system quality, interaction levels, and user-friendliness significantly shape students' attitudes toward online learning. These factors are crucial in determining the effective implementation of online educational systems. It is essential to acknowledge the degree of learners' engagement with online learning environments, as these attitudes act as significant indicators of their behaviour (Çelik & Uzunboylu, 2022). Furthermore, the swift advancement of technology and educational methodologies necessitates continuous research to adapt to the evolving attitudes of students (Akcil & Bastas, 2020).

According to Oducado and Soriano's (2021) research, 40.5% of participants expressed negative attitudes towards e-learning, while 30.6% expressed ambivalence, resulting in a composite mean score of 2.59. The composite mean score for attitudes towards e-learning was 2.59. A study by Konwar (2017) focused on college students in North Lakhimpur, Assam. The results found that the participants generally held a favorable view of e-learning, with urban college students demonstrating positive attitudes. Students who maintain a positive attitude tend to thrive in the learning of new systems, while those with a pessimistic mindset may struggle academically.

Moreover, research shows that a multitude of factors, including technological, pedagogical, and socio-cultural dimensions, influence students' attitudes towards e-learning (Monib, 2023). According to Uyar (2023), learners maintained a positive view of online education. They expressed their strong support for this form of education. According to Prakasha et al. (2022), some predictors form a fundamental framework for learner disposition regarding online learning. It is also vital to know that these attitudes are generally unique to each individual and influenced by specific situational factors. Malkawi et al. (2021) undertook a research study that investigated the level of students' satisfaction and attitudes regarding online education during the pandemic. The study's outcomes showed that students, on the whole, expressed a high level of satisfaction and positive perceptions of virtual education; however, distinct differences emerged across various dimensions. Student attitudes towards e-learning can vary considerably, influenced by factors such as their previous technological experiences, personal learning preferences, and particular characteristics. Thakkar and Joshi (2017) carried out a similar study to examine the attitude of students pursuing a diploma in engineering. The findings indicated a positive attitude among students regarding online learning. Moreover, the results indicated that positive attitudes remained unaffected in terms of gender variations, geographic location, or social classification of the participants. Hussein (2017) indicated that attitude is the fundamental factor in determining technological acceptance. The learners' attitudes towards e-learning served as a reliable indicator of their potential to fully exploit its advantages.

### **Students' Perception of E-Learning**

The efficacy of online learning platforms depends on students' willingness to actively engage with the learning technology. Any shortcomings in that readiness could lead to students' poor performance, despite the system's benefits. According to Vitoria et al. (2018), students perceived the use of the online learning web-based module as instrumental in advancing their knowledge, promoting individuality, strengthening self-discipline, motivating their learning efforts, and facilitating interactions with classmates and instructors. Additionally, the students noted that the module was user-friendly. The perception of students towards online learning is crucial, as negative perceptions can significantly affect motivation and persistence, leading to potential loss (Kauffman, 2015).

Negative perceptions of electronic learning systems can render the entire system ineffective, as well as defeat the purpose of its implementation. Accessible materials, affordable internet charges, reliable connectivity, and timely student needs are crucial for student adoption of the system. According to Cakrawati's (2017) study, the majority of the participants expressed positive perception as well as their satisfaction regarding the efficacy of the e-learning mode. Students' satisfaction level and perception determine the impact and value of the electronic learning platform. The advent of electronic learning has given rise to a fresh paradigm shift, altering the traditional lecturer-centred approach with one that is more focused on the needs of the students. Abbasi et al. (2020) discovered that a majority of learners in Pakistan showed a preference for face-to-face learning over online education. According to the study, 86% of students felt that e-learning had limited effect on their studying experiences. The study further indicated that

the limitations inherent in online instruction created barriers to practical learning, which diminished the overall attractiveness of this educational approach for students.

Afful and Boateng's (2023) research on electronic learning in Ghana's public universities revealed that students highly value mobile learning as a crucial aspect of their academic pursuits. Their research revealed that students perceive communication, online courses, assignments, meetings, and social media networks as essential elements of their e-learning experience. Notwithstanding these insights from public universities, there is a need to determine whether similar patterns and preferences exist at VVU. This implies that several factors, such as the absence of direct teacher interaction, obstacles in maintaining attention, and technical difficulties, influenced students' preference for traditional classroom settings. They regarded conventional learning as more beneficial in meeting their educational needs and improving their overall learning experience.

Furthermore, the adoption and implementation of technology in education have positively impacted the academic environment, rendering it more engaging, conducive, and comfortable experience for students (Bali & Liu, 2018). A study by Adijaya (2018) demonstrated that the level of interaction between instructors and learners in online environment was not as satisfactory as in traditional classrooms. This has led to a widespread preference among students for face-to-face education over online learning. In a related study by Astuti and Febrian (2019) found that students generally show a positive disposition towards electronic education. However, certain students may perceive the e-learning model unfavorably, largely due to their ongoing adaptation to technological tools. The concept of online learning is steadily rising in prominence in education, becoming a key player in the contemporary technology-driven environment.

### **Perceived Ease of Use of E-Learning Platform**

Within an online learning framework, perceived usefulness denotes the level of conviction individuals hold regarding the potential of e-learning to positively influence their performance or help them reach their learning targets (Hao et al., 2017). According to Saifuddin (2018), students' motivation towards online learning increased significantly, and they found it to be instrumental in their ability to comprehend course materials effortlessly. Students' preparedness, the nature of the technology to be adopted, the learning platform, available resources, and the environment all have an impact on their acceptance of technology. When the system is simple, learners are more likely to actively participate and immerse themselves in the learning process.

According to Samir and Nosseir (2020), students preferred traditional teaching techniques over online instruction throughout the lockdown time. While students frequently appreciate the ease associated with online learning, they typically exhibit a preference for in-person educational settings (Al Shlowiy et al., 2021). This indicates that, despite the technological innovations that provide significant flexibility, students still hold traditional educational practices in high regard due to their important contributions to learning outcomes and the overall educational experience. Online learning is essential in modern education because it provides college students with the advantages of flexibility, accessibility, and enriched learning experiences through the use of technology (Prevalla et al., 2022). This degree of flexibility addresses a spectrum of learning styles and speeds, enabling learners to engage with the material according to their unique educational needs.

Elkaseh et al. (2016) highlighted that the willingness of both students and faculty to adopt and online learning in the Libyan College of Education was driven by their perceived simplicity of use and the benefits offered by social networking media. Farhan et al. (2019) undertook a study with 102 undergraduates in Canada. The results revealed a correlation between the use of technology without much effort and learners' attitudes toward the use of web programming languages for instructional communication in an online educational setting.

Wyse et al. (2020) and Hamilton et al. (2020) noted that numerous users were unable to access to learning resources during the COVID-19 pandemic, which indicated a considerably low degree of engagement in virtual education. Monib (2023) asserts that students generally perceive e-learning as an effective resource within higher education.



Nevertheless, students expressed a preference for hybrid education that blend online learning with traditional learning or face-to-face engagement. A study by Arthur (2022) indicated that the majority of students preferred traditional instruction over online learning methods. The system's usefulness and ease of use had a significant impact on the students' decisions. Furthermore, students' perceptions of the platform's usefulness and perceived ease of use significantly reinforced their choices. A significant number of these students encountered technological challenges, including disruptions in network service and inadequate internet speed.

Aswasulasikin (2020) found that learners frequently experience monotony during e- learning session. Additionally, they expressed a strong desire for instructors to adopt new strategies to lessen the tedium associated with e- learning. At the University of Jordan, Almarabeh (2014) observed that the perceived ease of use significantly impacted students' engagement with the platform. Mohammadi (2015) revealed that the ease of using technology significantly influences Iranian students' willingness to adopt online education. In the age of technology, students need to have adequate skills and knowledge to compete globally. ICT competencies can help institutions overcome negative perceptions of technology use and achieve e-learning goals. Mahajan and Kalpana (2018) revealed that e-learning offers advantages from the perspective of students, leading to improved performance and a deeper understanding of their coursework. Irrespective of the challenges associated with e-learning, its acceptance holds enormous potential for enhancing students' learning and information access; therefore, we must embrace it.

## **MATERIALS AND METHODS**

The study used a quantitative survey approach to collect data from the respondents. The study focused on undergraduate students enrolled at VVU's Oyibi campus. A list of all students was provided to the researchers by the Admissions and Records Office of the University. This compilation served as the sampling frame, enabling the selection of respondents for participation in the study. The population of students who registered for the second semester was 296. They were selected from the General Education, the School of Business, the Faculty of Arts and Social Sciences, and the Faculty of Science.

Nwana (2008) asserted that if the population is in a few hundred, a 40% or more sample will do, if several hundred, 20% is adequate. For a few thousand, 10% is appropriate, and for several thousand, 5% is sufficient. A total of 40% of the population was sampled for this study. The researchers believed that this percentage would be sufficient to gather responses that effectively represent the population of the study.

A proportionate stratified sampling approach was employed to ensure fair representation of respondents from various schools, departments, and faculties, with a fair sample size determined after calculating 40% of the sampled population (296) which gave a results of 118.

$$\text{Sample size} = \frac{40}{100} \times 296 = 118.4$$

$$\text{Proportionate Sample Size} = \frac{\text{Population of students for each School /Department/ Faculty}}{\text{Total population of students}} \times 118$$

$$\text{See Table 2, School of Business (SOB)} = \frac{104}{296} \times 118 = 41$$

## **Instrument**

The study used a questionnaire as the sole instrument for data collection. A formal invitation was extended to the respondents, inviting them to partake in the survey through an email with a link directing them to the questionnaire on Google Forms. The participants were informed about the study's objectives. The process of data collection lasted for six weeks, after which the accumulated responses were meticulously analysed.

**DATA ANALYSIS**

To facilitate the cleaning and analysis of the data, IBM Statistical Package for Social Sciences (SPSS) version 22.0 was used. The outcomes are summarised in frequency tables and percentages. Out of 118 copies of the questionnaire administered, 112 were completed accurately, yielding a response rate of 95%.

Table 1. Population of the study

DISCIPLINES	Student Population
General Education ( GE)	50
School of Business (SoB)	104
Faculty of Arts & Social Sciences (FASS)	75
Faculty of Sciences (FoS)	67
Total	296

Source: Field data, 2023

Table 2. Sample Size

DISCIPLINES	Student Population		Proportionate Sample
General Education ( GE)	$50 / 296 \times 118$	=	20
School of Business (SoB)	$104 / 296 \times 118$	=	41
Faculty of Arts & Social Sciences (FASS)	$75 / 296 \times 118$	=	30
Faculty of Sciences (FoS)	$67 / 296 \times 118$	=	27
Total	296		118

Source: Field data, 2023

**RESULTS**

The following are the findings from the analysis.

Table 3. Gender of respondents

Gender	Frequency	Percentage (%)
Female	48	42.9
Male	64	57.1
Total	112	100

Ages	Frequency	Percentage (%)
16-20	3	2.7
21-25	60	53.5

26-30	35	31.3
31 & above	14	12.5
Total	112	100

Source: Field data, 2023

Table 3 shows that 42.9% of respondents were female, while 57.1% were male. Most respondents fell within the age bracket of 21-25 (53.5%), followed by those aged 26-30 (31.3%). The age groups of 31 and above and 16-20 accounted for 12.5% and 2.7%, respectively.

Table 4. Attitude of students'

Students' attitudes towards online learning	Never difficult	Rarely	Sometimes	Often difficult	Always
E-learning devices were user-friendly	31(27.68%)	13 (11.61%)	19(16.96%)	47 (41.96 %)	2 (1.79%)
E-Learning has developed my ICT skills	25 (22.3%)	20 (17.9%)	11(9.8%)	19 (17%)	37 (33%)
Learning with a computer was difficult	40 (35.7%)	21 (18.8%)	38(33.9%)	9 (8%)	4 (3.6%)
I like face-to-face education	3 (2.7%)	13 (11.6%)	78(69.6%)	12 (10.7%)	6 (5.4%)
Online learning was useful medium	55(49.1%)	29(26%)	9(8%)	11 (9.8%)	8 (7.1%)

Source: Field data, 2023

The results revealed that 78(69.6%) of the respondents indicated that they sometimes prefer face-to-face over e-learning, followed by 55(49.1%) who stated that online learning was never difficult, whereas 47(41.96%) indicated that the use of online devices was often difficult. The study revealed that 35.7% of students indicated that using computers for learning was never difficult. This suggests that the prevailing sentiment among the majority of students regarding e-learning was negative.

Table 5: Students' perceptions of online learning

Statement (Students N = 112)	N	Range	Sum	Mean	Std. Deviation
Online learning provides access to e-resources	112	3.00	251.00	2.2411	1.10074
I can interact with mates and lecturers during online learning	112	3.00	322.00	2.8750	1.02338
E-learning platforms support my learning	112	3.00	296.00	2.6429	1.09756
E-learning was difficult and frustrating	112	3.00	238.00	2.1250	1.16344
E-learning allows greater interaction with my lectures'	112	3.00	255.00	2.2768	1.05872
Access to the internet was difficult	112	3.00	288.00	2.5714	1.09638
Learning to use an e-learning platform was friendly	112	3.00	305.00	2.7232	1.08395
The loading and downloading of materials was easy	112	3.00	270.00	2.4107	1.18210
E-learning has developed my computer skills	112	3.00	262.00	2.3393	1.11947
Some lectures discourage students from using e-platforms	112	3.00	292.00	2.6071	.98050

Source: Field data, 2023



Table 5 above indicated that learners were able to interact effectively with their course mates and lecturers during online learning which ranked top with the mean and standard deviation scores of ( $x = 2.8750$ ;  $SD=1.02338$ ). This was closely followed by responses indicating that the online platform was user-friendly, with a mean score of ( $x = 2.7232$ ;  $SD = 1.08395$ ). On the other hand, those who felt that e-learning platform supported their learning were ranked with mean and deviation scores ( $x = 2.6429$ ;  $SD = 1.09756$ ), whereas those who alleged that their lectures discouraged them from the use of e-platforms were ranked with mean and deviations scores ( $x = 2.6071$ ;  $SD; .98050$ ).

Table 6: Perceived ease of use

Statement (Students N = 112)					
Perceived use of online platform	Very Difficult	Difficult	Neutral	Easy	Very Easy
Using online platform was	19 (17%)	25 (22.3%)	4 (3.5%)	47 (42%)	17 (15.2%)
Searching for information was	34 (30.4%)	30 (26.7%)	7 (6.3%)	26 (23.2%)	15 (13.4%)
Access to e-learning resources was	17 (15.2%)	44 (39.3%)	16 (14.3%)	31 (27.6%)	4 (3.6%)
The loading and downloading of materials was	60 (53.6%)	8 (7.1%)	11 (9.8%)	5 (4.5%)	28 (25%)
Logging onto the e-learning platform was	20 (17.8%)	33 (29.5%)	7 (6.3%)	46 (41.0%)	6 (5.4%)

Source: Field data, 2023

According to the responses in Table 6, 60 (53.6%) of the respondents reported that loading and downloading materials from the e-learning platform was very difficult. However, 47 (42%) respondents indicated that it was easy to use online platform. This was followed by 46 (41.0%) who stated that it was easy to log onto the e-learning platform. Again, 44 (39.3%) revealed that it was difficult to get access to learning resources on the platform.

## DISCUSSION

### Students' attitude towards e-learning

The findings established that the majority of respondents exhibited a negative attitude about online learning. This result is inconsistent with a study by Alanazy (2018), whose results revealed that both faculty members and students at Aljouf University, Saudi Arabia, exhibited positive attitudes regarding online education.

Nonetheless, this finding corroborates the work of Gakibayo et al. (2013), which identified factors attributing to learners' poor attitude towards e-learning as a lack of learning facilities such as a deficiency in learning resources, limited computer skills, a lack of information literacy skills, and insufficient access to computers for educational purposes.

### Students' perception of e-learning

The results found that most respondents successfully engaged with their peers on the e-learning platform. These findings contrast with those of Adijaya (2018), which suggested that the level of interaction between students and lecturers in online settings was less satisfactory compared to traditional classroom environments. On

the other hand, Cakrawati (2017) found that students held a positive view and satisfaction regarding the effectiveness of the e-learning system. This optimistic perception is likely to be influenced by students' abilities and engagement with ICT tools.

### **Perceived ease of use of online platform**

The analysis indicated that a considerable number of respondents found online platforms to be difficult to use. This outcome supports Arthur (2022) and Oproiua (2014) studies, which established that a considerable number of learners expressed challenges associated with online platforms due to their difficulty. Nonetheless, the results did not support Almarabeh's (2014) findings, which indicated that the perceived effectiveness of online systems significantly impacted learners' learning outcomes.

### **IMPLICATIONS**

The study is expected to assist university administrators in tackling the obstacles that impede the advancement of e-learning. The results indicated that students generally possess a positive attitude towards e-learning, appreciating its flexibility and accessibility. The implication is that students are more inclined to engage with the e-learning platform if they recognise it as beneficial for improving their learning outcomes or academic achievements. Nonetheless, certain students encounter difficulties related to technological problems and a lack of personal interaction. It is essential to address the technological and interactional obstacles. Policymakers should prioritise substantial investments in e-learning infrastructure.

This study can have valuable implications for both universities and students in Ghana and beyond, particularly regarding the integration of technology in educational settings.

### **CONCLUSION**

In conclusion, the study revealed that a significant number of students exhibit negative attitudes toward the e-learning system. Nevertheless, some students were able to engage with their peers and instructors on the Online Learning Platform (OFLP) to exchange information and deliberate on academic matters. This interaction reflects some positive attitudes towards the e-learning concept. Additionally, the study identified that students occasionally faced challenges when attempting to upload and download files from the platform. It is essential to address the technological and interactional obstacles. All stakeholders, including faculty, students, and the broader university community, should support the adoption of e-learning in higher education institutions (HEIs) to facilitate its advancement and sustainability within the academic environment.

### **Contributions of the study**

This study explores the viewpoints of undergraduate students at VVU regarding online learning, providing an in-depth analysis of both positive and negative perceptions. This contributes to the understanding of the impact that these attitudes may have on students' academic outcomes. In conclusion, the study provides substantial contributions to the knowledge of how students perceive e-learning and presents valuable recommendations for its improvement.

### **Limitations of the study**

The study is constrained in its scope, which implies that the results may not apply to students enrolled in public universities or those situated in various regions or countries. Additionally, the participants in this study may possess distinct perspectives on e-learning that differ from non-participants, potentially leading to biased outcomes. Furthermore, the attitudes of students from particular universities may not accurately represent those from other institutions that have different e-learning policies. Future studies should address these limitations to enhance the understanding of undergraduate students' views on online learning.

## Future studies

The current study examined the attitudes of undergraduate students at VVU towards e-learning. Future studies could replicate similar studies across both private and public universities. Future studies could broaden their scope and adopt the mixed methods approach to examine the challenges impeding e-learning at both public and private universities. Future studies could delve into the specific challenges students face and make comparisons among various e-learning platforms to enhance educational outcomes.

## Recommendations

Based on the results, the following recommendations are made:

1. The study recommends that the university management organise periodic training programs, such as workshops and seminars, for all students to enhance their skills in e-learning.
2. Students should have regular ICT staff who can attend to their IT needs using the e-learning platform and tools.
3. Management should ensure simple configuration of the wireless system to allow students to use their personal computers or laptops to access the e-platform while at home.
4. Regardless of students' ICT proficiency levels, those in charge of the e-learning system should ensure that all learners can easily use it.
5. The study recommended that the university authorities should ensure that faculty upload course contents and assignments onto the platform on time.
6. There should be regular ICT staff to attend to students' needs.
7. The university management should put their resources together to make e-learning attractive to all students.
8. To avoid internet challenges, the university should improve or increase its bandwidth subscriptions. E-learning relies on the internet.
9. The university should be proactive in taking measures to address some of the challenges identified in the study.

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