IMPACT OF E-LEARNING ON ACADEMIC MOTIVATION AND ENGAGEMENT OF SANDWICH PROGRAMME STUDENTS IN NNAMDI AZIKIWE UNIVERSITY, AWKA

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Abstract

This study investigated the impacts of E-learning on Academic motivation and engagement of part-time students in Nnamdi Azikiwe University, Awka. The study adopted a Descriptive research design and guided by three research questions. The study sample comprised of one hundred and forty-two (142) 2023/2024 sandwich undergraduate students drawn using convenient random technique. A structured questionnaire, developed by the researcher was used for data collection. Face and content validity was done by 3 experts in the field of Education. The reliability of the instrument was tested using a Cronbach Alpha and an alpha coefficient of 0.93 was obtained. The data collected were analysed using descriptive statistics of frequency, percentage and mean for answering the research questions. The findings showed that students have a positive attitude towards the use of e-learning as their Method of teaching and learning over the traditional face to face teaching and learning. The study discovered that e-learning also have positive impact on the students' academic motivation. Furthermore, the study found out that the impact of e-learning on academic engagement of the students is positive.It was recommended among others that the university management should provide more of ICT faculties and virtual classrooms

Keywords: *E-Learning, Academic motivation, Engagement, Sandwich Programme*

Introduction

Nnamdi Azikiwe University (NAU), Awka, like many other tertiary institutions in Nigeria, has adopted e-learning as a complementary approach to traditional teaching methods. The university's part-time programs include Continuing Education Program (CEP) and Sandwich program. CEP has not adopted e-learning as their mode of teaching and learning though a study by Anierobi et al (2023) showed that while CEP students have a positive attitude towards and willingness to adopt e-learning, they face challenges such as poor internet connectivity and lack of computer skills. On the other hand Sandwich program as part-time Program have adopted e-learning as their mode of teaching and learning in NAU.

E-learning, also known as online learning, is defined as the use of electronic technologies to deliver educational content, courses, or training programs to learners through the internet. It can take various forms, such as online courses, virtual classrooms, webinars, and digital resources like podcasts, videos, and interactive simulations. One of the major challenges of e-

learning is ensuring the quality and effectiveness of online education. According to Wang, Han, and Xin (2015), the lack of face-to-face interaction between instructors and students can lead to increased feelings of isolation and disengagement among learners. Moreover, maintaining student motivation and engagement in online courses can be challenging, as students may struggle with self-regulated learning and time management in a virtual learning environment (Slavin, 2014).

Despite these challenges, e-learning offers several benefits for both learners and educators. Some of the key advantages of e-learning include flexibility, accessibility, and scalability. E-learning allows students to access educational content at their own pace and convenience, making it easier for working professionals or individuals with busy schedules to continue their education (Shah, 2017). However, online courses can reach a larger number of learners compared to traditional classroom-based instruction, making education more accessible to a diverse range of students (Turan, 2016). E-learning is therefore, a rapidly growing trend in education, offering a range of benefits and challenges for both learners and educators. By addressing the challenges and leveraging the benefits of online learning, educators can create engaging and effective e-learning experiences for students in the coming years and it will increase academic motivation.

Academic motivation refers to the psychological factors that drive individuals to engage in academic tasks, persist in the face of challenges, and strive for academic success. It plays a crucial role in students' learning outcomes and achievement in educational settings. Academic motivation can take different forms and can be influenced by various factors. One form of academic motivation is intrinsic motivation, which involves engaging in academic tasks for the inherent enjoyment or satisfaction they provide. According to Deci and Ryan (2015), intrinsic motivation is characterized by feelings of interest, curiosity, and a sense of personal fulfillment. For example, a student who is intrinsically motivated to learn may find joy in exploring new ideas or concepts, even without external rewards or incentives. Another form of academic motivation is extrinsic motivation, which involves engaging in academic tasks to obtain external rewards or avoid negative consequences. Examples of extrinsic motivation include studying for a test to earn a good grade or completing homework to avoid parental reprimands. Extrinsic motivation can be further categorized into different types, such as external regulation (motivated by external rewards punishments) and introjected regulation (motivated by internal pressures like guilt or shame) (Deci & Ryan 2016).

Academic engagement can be defined as the extent to which students are committed to and invested in their learning experiences, both inside and outside the classroom. It encompasses active participation, motivation, and a sense of belonging within the academic community (Voelkl, 2014). Academic engagement is critical for student success, as it is closely linked to academic achievement, persistence, and overall well-being (Kahu, 2013). Academic engagement is a crucial aspect of student learning and success, and it comprises three key components: Cognitive Engagement, Affective Engagement, and Behavioral Engagement. These three components of academic engagement – cognitive, affective, and behavioral – play a critical role in students' academic success and overall well-being. Educators should strive to foster these forms of engagement in their classrooms to create a supportive and enriching learning environment for all students (Skinner & Belmont, 2013).

Academic motivation and engagement are crucial factors in students' academic success, particularly among part-time students who face unique challenges, such as balancing work and family responsibilities with academic pursuits. While e-learning offers flexibility and convenience, its impact on academic motivation and engagement among part-time students is not well understood. E-learning has become an essential tool for continuous learning in higher education institutions globally (Chukwuemerie, Akpan & Okoye, 2023). In Nigeria, recent developments in Information and Communication Technology (ICT) have opened up opportunities for new experiences, challenges, and levels of acceptance of e-learning (Chukwuemerie et al., 2023). Nnamdi Azikiwe University (NAU) Awka has adopted various degrees of e-learning platforms, including the Qverse learning management system (LMS) in its Sandwich programme (Chukwuemerie et al., 2023). Nnamdi Azikiwe University part-time Program cater to a diverse group of students, including working professionals, married men people and adult learners that most times does not have time to attend the traditional mode of teaching and learning which could lead to demotivation and poor academic engagement. E-learning on the other hand, could have a significant impact on improving academic motivation and engagement of students because it enhances flexibility and accessibility to users in their own conducive environment.

Previous studies have studied the students attitudes towards e-learning. Mukhametshin et al (2021); Anierobi et al (2023), and Thakkar and Joshi (2017) studied the students' attitude to e-learning. These studies showed that the students have positive attitudes towards e-learning. Elshareif & Mohamed (2021) carried out a study on the effects of e-learning on students' motivation to learn in higher education and Ahmad, Rizwan, Shahbaz & Ahmad (2021) investigate the role of e-learning in students motivation, these studies show that E-learning had a significant positive effect on students' motivation to learn. Falola, Ogueyungbo, Salau & Olokundun (2022) research on empirical investigation of e-learning opportunities and faculty engagement in Nigerian universities: moderating role of demographic characteristics; and Sathe et al (2023) on the effect of online learning on student engagement, these studies showed that "enhancing Online learning was found to have a significant positive impact on student engagement, Flexibility, autonomy, and interactive content were identified as key factors student engagement.

Despite the potential benefits of e-learning, the sandwich program students in Nnamdi Azikiwe University, Awka, faces some challenges in adopting this mode of learning, which includes low internet access, technical challenges,,lack of internet skills or knowledge and so on, resulting to low academic motivation and engagement among some students. Nnamdi Azikiwe University part-time Program cater to a diverse group of students, including working professionals, married men people and adult learners that most times does not have time to attending the traditional mode of teaching and learning which leads to demotivation and poor academic engagement. Demotivation and poor academic engagement leads to poor academic performance of students. The university's e-learning platform is underutilized, and students' willingness to adopt e-learning is unclear. Therefore, this study aims to investigate the impact of e-learning on academic motivation and engagement among sandwich program students at Nnamdi Azikiwe University, Awka and exploring the attitudes of Sandwich students towards the use of e-learning in Nnamdi Azikiwe University.

This present study sought to investigate the impact of e-learning on the academic motivation and engagement of sandwich program students in Nnamdi Azikiwe University, Awka.

By exploring the experiences and perceptions of these students, this research seeks to provide insights into the effectiveness of e-learning in promoting academic motivation and engagement among this diverse group of students.

To give direction to the study, three research questions were raised. They are:
1. What is the attitudes of Sandwich students towards the use of e-learning in Nnamdi Azikiwe University Awka?
2. What is the perceived impact of e-learning on the academic motivation of sandwich students in Nnamdi Azikiwe University, Awka?
3. What is the perceived impact of e-learning on the academic engagement of sandwich students in Nnamdi Azikiwe University, Awka?

Methods

A descriptive survey research design was adopted for this study. This design is deemed appropriate for the present study which sought the impact of e-learning on academic motivation and engagement of part-time students in Nnamdi Azikiwe University, Awka. The population of this study comprised of four hundred and five (405) respondents comprising of all the 2023/2024 sandwich undergraduate students in Nnamdi Azikiwe University, Awka. (Sandwich Administration Unit,2024).This population was of manageable size and considered for use for the study, therefore, no sampling was done.

The research instrument used for this present study was a structured questionnaire, developed by the researcher. The instrument was titled "Impact of e-learning on academic motivation and engagement of part-time students in Nnamdi Azikiwe University Awka". The questionnaire has two sections of A and B. Section A sought information on personal data of the respondents while section B has 3 clusters and sought information relevant for answering the research questions. The instrument contains a total of 15 items (5 each for cluster 1, 2, and 3). The instrument is based on four point rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) and weighted 4, 3, 2 and 1 respectively. The instrument was duly validated by experts in the field of Education.

The reliability of the instrument was tested using the Cronbach Alpha Statistics internal consistencies of the items in the clusters and it yielded an overall alpha co-efficient of 0.93 for the entire cluster. This shows that the instrument was reliable and was used as instrument for data collection.

Data obtained in the study were analyzed in line with research questions. The research questions were answered using descriptive statistics of arithmetic mean and frequencies. The researcher presented the data collected in a tabular form for easy understanding. The decision rule is that a mean value of 2.50 was used as the criterion. The implication of this is that any item that scored a mean of 2.50 and above would be taken as "agreed" responses while items that scored less than 2.50 would be regarded as "disagreed" responses.

Result
Table 1: Frequency, percentage and mean rating of respondents on the attitudes of

S/N	Items	SA 4	A 3	D 2	SD 1	Mean	Decision
1	I find E-learning resources helpful in my academic studies.	54 38%	59 41.5%	22 15.5%	7 5%	3.12	Accept
2	E-learning are user-friendly and easy to navigate.	47 33.1%	64 45.1%	23 16.2%	8 5.6%	3.05	Accept
3	I prefer traditional face to face learning over e-learning	33 23.2%	37 26.1%	29 20.4	43 30.3%	2.42	Reject
4	E-learning has improved my access to course materials and learning resources.	51 35.9%	56 39.4%	24 16.9%	11 7.7%	3.03	Accept
5	I believe e-learning enhances my overall experience at Nnamdi Azikiwe University, Awka.	35 24.6%	65 45.8%	31 21.8%	30 7%	2.87	Accept
	N= 142		Grand mean		-	2.89	Accept

jsandwich students towards the use of e-learning in Nnamdi Azikiwe University, Awka

Data presented in Table 1 show the mean response scores of Sandwich students attitudes towards e-learning in Nnamdi Azikiwe University, Awka. From the responses to the five items, it can be seen that the respondents have a cluster mean score of 2.89. However the negative responses observed in item 3 with mean of 2.42, implied that the students shows negative interests towards the traditional face to face learning. Generally, Sandwich students have a positive attitudes towards e-learning in Nnamdi Azikiwe University, Awka.

Table 2: Frequency, percentage and mean rating of respondents on the perceived impact of e-learning on academic motivation of sandwich students in Nnamdi Azikiwe University, Awka

S/N	Items	SA 4	A 3	D 2	SD 1	Mean	Decision
6.	E-learning has increased my enthusiasm for learning and motivation to study.	37 26.1%	66 46.5%	29 20.4%	10 7%	2.91	Accept
7.	The flexibility of e-learning has motivated me to take more control over my academic progress.	32 22.5%	76 53.5%	25 17.6%	9 6.3%	2.92	Accept
8.	E-learning has made me feel more motivated and interested in my courses.	32 22.5%	67 47.2%	35 24.6%	8 5.7%	2.86	Accept
9.	The use of e-learning has reduced my motivation to attend traditional classes.	26 18.3%	61 43%	41 28..9%	14 9.9%	2.69	Accept

10	E-learning has positively impacted my academic motivation and desire to learn.	35 24.6%	70 49.3%	28 19.7%	9 6.3%	2.92	Accept
	N= 142	Grand mean			-	2.86	Accept

Data presented in Table 2 show the mean response scores of perceived impact of e-learning on the academic motivation of sandwich students in Nnamdi Azikiwe University, Awka. From the responses to the five items, it can be seen that the respondents have a cluster mean score of 2.86. It implies that e-learning have positive impact on academic motivation of Sandwich students in Nnamdi Azikiwe University, Awka.

Table 3: Frequency, percentage and mean rating of respondents on the perceived impact of e-learning on academic engagement of sandwich students in Nnamdi Azikiwe University, Awka.

S/N	Items	SA 4	A 3	D 2	SD 1	Means	Decision
11.	E-learning has increased my Participation in class discussions.	40 28.2%	52 36.6%	38 26.8%	12 8.5%	2.84	Accept
12	I am more likely to ask questions in class since using e-learning.	26 18.3%	62 43.7%	43 30.3%	11 7.7%	2.72	Accept
13.	E-learning has helped me develop a better understanding of course materials.	37 26.1%	68 47.9%	26 18.3%	11 7.7%	2.92	Accept
14.	I spend more time studying since e-learning was introduced.	33 23.2%	60 42.3%	36 25.4%	13 9.2%	2.79	Accept
15.	E-learning has improved my overall academic performance.	66 46.5%	41 28.9%	20 14.1%	15 10.6%	3.11	Accept
	N= 142						
		Grand mean			-	2.87	Accept

Data presented in Table 3 show the mean response scores of perceived impact of e-learning on the academic engagement of sandwich students in Nnamdi Azikiwe University, Awka. From the responses to the five items, it can be seen that the respondents have a cluster mean score of 2.87. It implies that e-learning have positive impact on academic engagement of Sandwich students in Nnamdi Azikiwe University, Awka.

Discussion
The study found that students have a positive attitudes towards the use of e-learning as their method of teaching and learning in Nnamdi Azikiwe University, Awka. This is as evidenced in their agreement that s e-learning resources are helpful in their studies. They also accepted that e-learning is user-friendly and easy to navigate. The students however, rejected the use traditional face to face method of teaching and learning. They also accepted that e-learning have improved their access to course materials and learning resources with 3.03 mean score. And

also the the students believed that e-learning have enhanced the overall experience in Nnamdi Azikiwe University, Awka with 2.87 mean score. The findings support that of Mukhametshin et al (2021) and Thakkar & Joshi (2017) who found that students have high level and positive attitudes towards e-learning.It also aligns with the findings of Anierobi et al (2023) which reported that part-time students have positive attitude towards the adoption of e-learning as their method of teaching and learning.

The study on investigating the perceived impact of e-learning on academic motivation of Sandwich students in Nnamdi Azikiwe University, Awka discovered that e-learning have a significant positive impact on students' academic motivation in Nnamdi Azikiwe Universit, Awka. The students reported that e-learning has increased their enthusiasm for learning and motivation to study. The participants also accepted that the flexibility of e-learning have motivated them to take more control over their academic progress and has made them have more interested in their courses. The students accepted that the use of e-learning have reduced their motivation to attend the traditional classes. This support the findings of Eleshareif & Mohamed (2021) and Ahmad, Rowan, Shahbaz &Ahmed (2021) who found that e-learning have a significant positive impact on students' academic motivation in their research findings.

The study found that e-learning also have a significant positive impact on students' academic engagement in Nnamdi Azikiwe University Awka. This is shown in the students' agreement that e-learning have increased their participation in class discussions. The students also accepted that they are more likely to ask questions in class since using e-learning. They also accepted that e-learning have helped them develop a better understanding of their course materials. The study also found that students spend more time studying since e-learning was introduced. Students also reported that e-learning has improved their overall academic performance through their engagements. The finding supports Falola, Ogueyungbo, Sahu & Olokundun (2022) and Sathe et al (2023) who found that e-learning have a significant positive impact on students' academic engagement.

Conclusion

Based on the findings of the study, the study concludes that students prefer e-learning over traditional face to face teaching and learning. The study also concludes that e-learning have improved the students' academic motivation and engagement which will also positively impact their academic performance due to the students positive attitudes, improve in their academic motivation and engagement and also it will makes them take charge over their academic outcomes.

Recommendations

Based on the findings of the study, the researcher recommend as follows:

1. The university management should provide more of ICT faculties and virtual classrooms for the effective use of e-learning among Sandwich students in the university.
2. The Directorate of Sandwich should organize training and workshop for Sandwich students to acquire the necessary information about some problems some of them are facing in participation in online learning.

Limitation of the study

The study is limited by time and students responses. First, the time stipulated for the study was short and other factors related to the study were not covered as the researcher have to

deal with course work and other academic activities while carrying out the research. Again, the study was limited by students responses as the researcher were only able to get only 142 responses out of 405 the total population of the sandwich students in Nnamdi Azikiwe University, Awka, which may not have negative effect on the findings of this study.

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