



Blended Learning Approach: Students' Perception, Challenges and Achievement

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Competing Interests: The authors
declare no competing interests.

ABSTRACT

Background: Blended learning is a method of teaching that has gained prominence in the educational sphere lately. The COVID-19 pandemic of 2020 further publicized this teaching-learning approach, as schools across the world had to find alternatives to the face-to-face usual classroom instructions.

Objectives: This study examined students' perceptions of the benefits and challenges of blended learning mode.

Methods: Five research questions were raised to guide the study and a descriptive survey research design was employed. 264 undergraduates from a private university in Lagos state, Nigeria, participated in the study. The instrument used was Blended Learning Perception (BLP), it was adapted and Principal Component Analysis was used for its validation. The instrument explained a total variance of 56.52% and three factors were extracted. The reliability index of the Instrument was 0.87. Descriptive Statistics was used to answer the research questions.

Results: The result obtained showed that lecturers in the Faculty of Science utilized the blended approach the most, while many students had positive perception of the blended learning (2.92 ± 0.53). The challenges faced by the students were; lack of training on how to use the Google classroom (64.8%), poor feedback from online assessments (68.9%), low internet speed and connectivity problems (84.8%). The benefits of blended learning as stated by some respondents were opportunity for individualized study and content retention (83.7%), learning in multiple ways (91.2%). Students attitude did not influence their academic achievement ($r = 0.005$).

Conclusions: The findings showed that students had positive perception and attitude towards blended learning. Their attitude towards blended learning did not influence their academic achievement significantly.

Keywords: Blended learning, Gender, Students' perception, Google classroom, Achievement

INTRODUCTION

Blended learning is a teaching method that has recently gained prominence in the educational sphere. The COVID-19 pandemic of 2020 further pronounced this instructional mode, as schools across the world had to find alternatives to the usual face-to-face classroom teaching-learning activities. According to Suprabha and Subramonian (2020), blended learning is defined as a combination of online learning with traditional face-to-face learning. They noted that although e-learning has had a significant impact on the teaching and learning environment, it has evolved into the concept of

blended learning. According to Panopto (2019), blended learning can also be called hybrid learning, as it is a method of teaching and learning that involves the use of technology and digital media with the usual instructor-led classroom activities, thereby giving students the flexibility to customize their learning experience. It also has the advantage of combining the normal classroom with distance learning.

There are 4 major models of blended learning. These are the rotation model (where

students rotate between learning in groups in the classroom setting, laboratories and as well as the online environment where they study alone), The Flex Model (where the teachers are physically present depicting the traditional classroom, but coursework are completed online); A La Carte Model (where students choose to complete their coursework online or traditionally, whichever choice they make, the students will still be made to interact with the teacher virtually) and Enhanced virtual Model (which involved students going home to complete coursework, after receiving the traditional face to face learning) (Campbell, 2014; Panop- to, 2017; TCI, 2021; Corbett 2022).

Several studies (Finn and Bucci, 2004; Garrison and Vaughan, 2008; Graham, 2013) have been carried out on this multi-modal approach to teaching and learning, Amenduni and Ligorio (2022) stated that in higher institutions of learning, blended learning is not a new educational approach, but was studied by only a niche before the first wave of COVID- 19. It was also noted that after the first wave of COVID, many educationists acknowledged the effectiveness of blended learning over the traditional teaching patterns and this gave room for professional development, as most teachers realized that blended learning is not a blend of two or more methods of teaching, but rather a blend of online and traditional classroom interaction. Since the advent of the New Normal, most schools had adopted the blended learning modality. Abbacan-Tuguic (2021) in his study on the challenges of the new normal: students' attitude, readiness and adaptability to blended learning modality, found that students had positive attitudes and showed a moderate level of readiness to implement blended learning. However, there is a negative correlation between the students' attitude and their readiness towards blended learning environment.

Das (2021) also studied the attitude of students towards blended learning at the elementary level and found that the blended learning instructional strategy is more effective in increasing students' interaction with the teacher than the traditional learning process. Other recent empirical studies on blended learning have further supported the claim that blended learning has several advantages such as facilitating independent learning, improving students' attitude to learning and improving academic achievement (Aladwan, et al, 2018; Fenech, Baguant &

Abdelwahed, 2021; Atwa et al., 2022; Boca, 2021).

Some tertiary institutions in Nigeria have adopted the blended learning approach since the advent of the New Normal (Egelewa et al 2021; Fasoranti, 2021). While the Faculty members claim that the conventional (lecture) method of teaching is no more necessary for learning and that the students around the world have already discovered that learning can happen at any time, in any place and in any setting (Suprabha & Subramonian, 2020), undergraduate students seem to have mixed feeling about this learning strategy, in that, while some readily responded to online assessments in the blended learning, others altogether ignored their online assessments.

The problem of students' perceptions of blended instruction, the intricacies of coping with the current realities, possible adjustment mechanisms, and encountered challenges during teaching/learning interactions necessitated this study. Although the blended learning approach was adopted by the sampled school since its inception, the prominence gained during the COVID-19 pandemic and this study became obvious due to the global shift in instructional approach became more prominent after the COVID-19 pandemic.

Objectives of the Study

This study aimed to determine the attitude of students towards the blended learning instructional approach at Anchor University. The specific objectives are;

- To determine the level to which faculty members utilized the blended learning approach in their instructions
- To determine students' benefits from blended learning Instructions.
- To determine students' challenges as regard blended learning instructions
- To determine the demographic factors that could influence students' attitudes towards blended learning
- To determine if students' attitude towards blended learning influences their academic achievement

Research Questions

- To what level do Faculty members utilize the blended learning approach in their instruction?
- What are the benefits of blended learning instructions as observed by students?
- What are the challenges of blended learning as observed by students?
- Do students' demographic factors influence their attitude to blended learning?
- Do students' attitudes towards blended learning influence their academic achievement?

Methods

The study was conducted using a survey design to ascertain students' perceptions and attitudes towards the blending approach and their challenges to blended learning. 264 undergraduates from a faith-based private university in Lagos state, Nigeria participated in this study. This sample was selected through a purposive sampling technique. The instrument used for data collection was Questionnaire titled Student Perception and Challenges towards Blended Learning (SPCBL). This was adapted from Aladwan et al (2018).

The instrument was divided into two subsections. Section A addresses the demographic variables of the respondents as well as other general information about blended learning. Section B addresses the students' perception towards blended learning. The instrument utilized the 4 points Likert scale (1- strongly disagreed; 2 – disagreed; 3- agreed and 4- strongly agreed). The codes for negatively worded items were reversed (4- strongly disagreed; 3 – disagreed; 2- agreed and 1- strongly agreed), thus students with very low scores have challenges in these areas. The instrument used for the collection of data for the achievement test was the students' immediate past semester results.

The validity of the instrument was determined using the principal component analysis. The instrument explained a total variance of 56.52%. Three Factors were extracted namely the attitude, challenges and benefits. The content validity ranged from 0.366 to 0.724. The reliability of the instrument was determined using Cronbach's alpha, and the reliability index was 0.866.

A printed questionnaire was administered to the sampled students and collected immediately after the responses were obtained. Data

collected were analyzed using SPSS Version 25. Descriptive statistics (Frequency, Percentages, Mean and Standard deviation) were used to answer research questions 1 to 4, while Pearson Product Moment Correlation (PPMC) was used to answer research question 5.

Results

Demographic representation of respondents

Table 1 shows the various characteristics of the respondents. 39% of the respondents were Males and 61% of them were females. When classified based on age, 0.8% of the respondents were less than 15 years of age, 77.3% were between the ages of 15 and 20 years, 20.8% were between 21 and 25 years and 1.1% were between 26 and 30 years. 39% of the respondents were in the 100 level, 29.9% were in the 200 level, 4.5% were in the 300 level and 26.2% in the 400 level. 45.5% of the sampled students were from the faculty of social and management science, 14.4% were from the humanities and 35.6% were from the faculty of science, 4.5% of students did not indicate their faculty.

Table 1: Demographic variables of Respondents

Variable		N	%
Gender	Male	103	39.0%
	Female	161	61.0%
Age	Less than 15	2	0.8%
	15- 20 years	204	77.3%
	21 - 25 years	55	20.8%
	26 - 30 years	3	1.1%
Level	100 level	104	39.4%
	200 level	79	29.9%
	300 level	12	4.5%
	400 level	69	26.2%
Faculty	FSMS	120	45.5%
	Humanities	38	14.4%
	Science	94	35.6%

Research Question One

To what level do faculty members utilize the blended learning approach in their instruction?

Table 2: Level of adoption of blended learning instructional approach by faculty members

Blended learning approach in courses taught	N	%
1 -2 courses	55	20.8%
3 - 4 courses	65	24.6%
5-6 courses	38	14.4%
Above 6 courses	80	30.3%

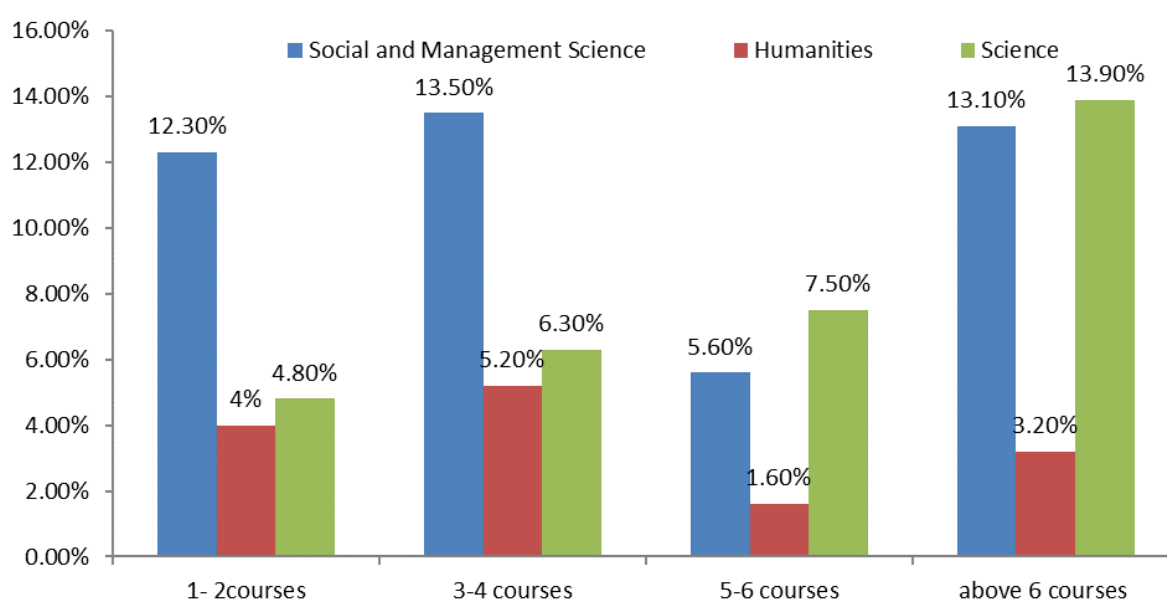


Figure 1: Number of Blended learning courses offered by Faculties

From the result obtained, 20.8% of the respondents indicated that their lecturers in just one or two courses used the blended learning approach. 24.6% indicated that the blended approach was used in about 3 or 4 of their courses while 14.4% of them stated that their lecturers used blended learning in up to 5 or 6 of the courses offered in the previous semester. 30.3% of the students used the blended learning approach in more than six courses they had offered while 9.84% of respondents did not specify. The result is indicative that the lecturers in the study location do utilize the blended learning instructional approach.

In determining the faculty that utilized the blended learning the most, figure 1 shows 13.9% for the Faculty of Science as those utilizing the blended learning approach in more than 6 courses. 13.1%

for those in Social and Management science and 3.2% for those in humanities. In addition, for those utilizing the blended learning approach in 5 to 6 courses offered, those in the Faculty of Science are 7.5%, 5.6% are from Management and social science and 1.6% from Humanities. 13.50% and 12.3% of those in Management Science are utilizing blended learning in 3 or 4 of their courses and 1 or 2 of their courses respectively. Of those in Faculty of Humanities, 5.2% utilized blended learning in 3 or 4 of their courses and 4% are utilizing it for a maximum of two courses. 6.3% utilized blended learning in 3 or 4 of their courses and 4.8% are utilizing it for a maximum of two courses in the Faculty of Science.

Research Question Two

What are the benefits of blended learning instructions?

Table 3: Benefits of Blended Learning approach to Instructions

Benefits	%
Aids online group discussion forum	78%
Clearer understanding, assimilation and retention of content taught	66.3%
More interesting than a normal class setting	66.8%
The convenience of learning anytime through Google classroom	67.4%
Use of different computer programmes	62.9%
A dual mode of learning motivates students	65.9%
Access to several educational materials	76.9%
The opportunity for individualized instruction and content retention	83.7%
Learning in multiple ways	91.2%

78% of the respondents were of the view that blended learning instruction aids online group discussion and 76.9% indicated that it gives access to several educational materials as they were not restricted only to just the notes given to them in class. Some benefits indicated were the convenience of learning at the students' own pace (67.4%); the approach seems more interesting to the students than the traditional teaching methods (66.8%), using blended learning give a clear understanding, assimilation and retention of content (66.3%), students are motivated to learning by the dual mode (65.9%) and the ability for them to use different computer programme as a result of the blended learning approach (62.9%). Others were opportunity of individualized instruction and content retention (83.7%) and learning in multiple ways (91.2%).

Research Question

Table 4: Challenges of Blended Learning

Challenges	Mean	Standard Deviation	% of Respondents with Challenges
Difficulty in using Google classroom	2.76	1.06	32.7%
Lack of organization of study materials	2.27	1.01	56.9%
Lack of feedback on assignment	2.10	0.94	68%
Inability to comprehend materials posted on Google Classroom	2.83	0.87	27.7%
Inability to abide by the instruction	2.68	0.86	37.9%
Challenges in navigating the Google classroom	2.65	0.95	39.4%
Hardly have time for physical contact with friends outside the department	2.58	1.03	44.4%
Less communication time with instructors	2.32	0.95	60.8%
Hardly understand what is taught online	2.60	1.02	42.1%
Lack of training on how to use Google classroom	2.24	0.91	64.4%
Low internet speed and connectivity problem	1.63	0.94	84.5%

Three

What are the challenges of blended learning?

Table 4 shows the students' challenges as regards blended learning instruction. The result shows that 27.7% were not able to comprehend study materials posted on Google classroom, 32.7% had difficulty using Google classroom for their assignments, 37.9% were not able to abide by the instructions given, and 39.4% also had challenges navigating through the Google classroom. 42.1% hardly understood the online videos and contents, while 44.4% of the students were of the view that since they started blended learning, they hardly had time for physical contact with their friends from other departments. Table 4 shows that most students had challenges with feedback from assignment on the online teaching platform (68%), had less communication time with instructors (60.8%) and had study material not organized (56.9%). In addition, most students complained about lack of training on how to use Google classroom (64.4%) as well as low internet speed and connectivity (84.5%).

In determining the gender with more challenges, the percentage of students having challenges was computed and presented graphically as shown in figure 2. Figure 2 shows that the female students had more difficulty using blended learning approaches than their male counterparts.

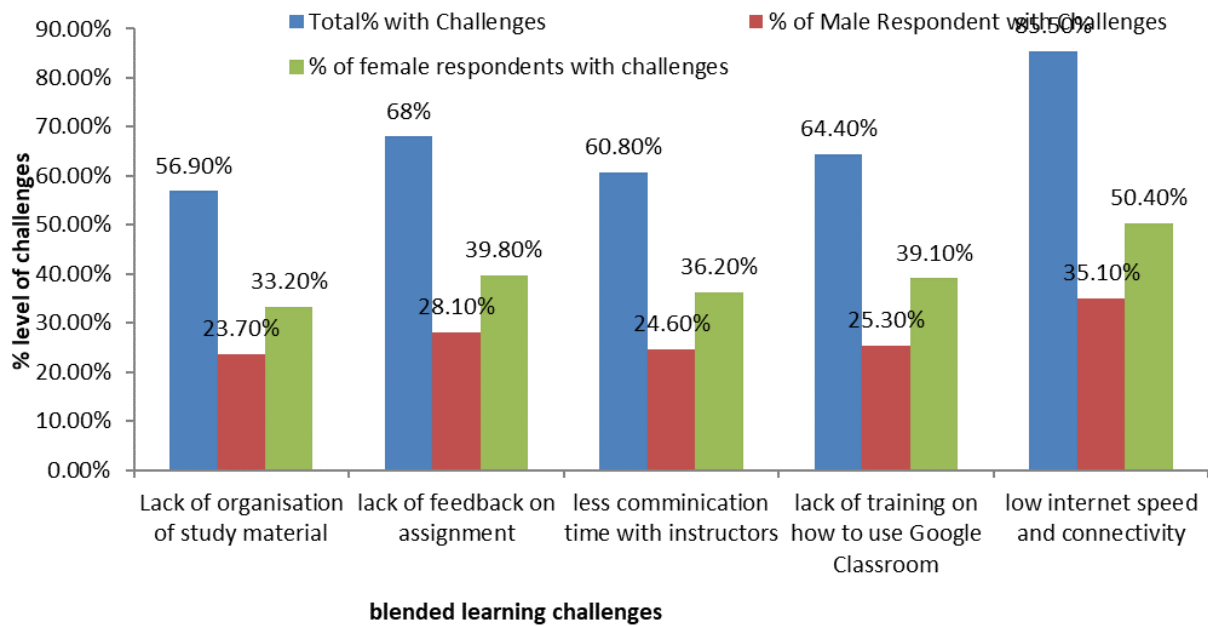


Figure 2: Level of Challenges Faced by Male and Female students in the use of Blended learning

Research Question 4

Do attitudes of students towards blended learning influence their academic achievement?

Table 5: PPMC of students' demographic variables and attitude towards blended learning

	Gender	Age	Level	Faculty	Attitude
Gender	1				
Age	0.034	1			
Level	0.116	0.408**	1		
Faculty	-0.260**	-0.054	-0.189**	1	
Attitude	-0.036	-0.060	-0.013	-0.073	1

**Correlation is significant at the 0.01 level (2-tailed)

Table 5 shows that students' demographic variables do not significantly correlate with their attitude towards blended learning.

Research Question 5

Do students' attitude towards blended learning influence their academic achievement?

Table 6: Correlation between students' attitude towards blended learning and their academic achievement

	Mean	SD	R	P
Attitude	37.77	7.12	0.005	0.963
Academic Achievement	2.62	0.93		

Table 6 shows that student's attitude did not significantly influence their academic achievement ($r = 0.005$, $p = 0.963$).

Discussion

The result obtained from the study revealed that the undergraduates sampled were between the ages of 15 and 20 years and more than half of them were females. Okoye, et al (2018) in their study found that most respondents were within a similar age range as found in this study. The finding of this study reveals that the lecturers in the study area do utilize the blended learning instructional

approach. Nasiru, et al (2020) found that many lecturers were using Blended-learning model for their instructions, which is similar to the finding obtained in this study.

Some benefits of blended learning are the opportunity for individualized instruction and content retention. This was similar to the assertions of Okocha, et al (2016) that the lecture undergraduates were more interested in just studying the material online. Jackson, Jones & Rodriguez (2010) noted that students become more independent in the blended learning environment while lecturers assume the role of facilitators which is stated as a major challenge, though not really a problem for active learning. The outcome of this study also revealed that most students opined that blended learning helps them to learn in multiple ways as well as aids their online group discussion. Students generally had a positive attitude towards Blended learning. This is in line with the study of Abbacan-Tuguic (2021) who discovered that student's attitude to this approach was a positive one. The report of Okoye, et al (2018) is in consonant with the current study as it showed that pre-service teachers had positive opinions about blended learning techniques.

Some of the challenges faced with the utilization of a blended approach were low internet speed or connectivity and lack of feedback from online assessments. These findings confirmed the report of Ifinedo and Ololube (2007) which revealed that some challenges in the blended learning approach to instruction include limited computer/internet access, poor infrastructure, power supply shortages, and lack of trained faculty/personnel. While students complained of less communication time with instructors in this study, a study conducted by Okocha, et al (2016) affirmed the contrary, in that, undergraduates were less interested in discussing with lecturers and classmates.

From this study, students' variables did not significantly correlate with their attitude towards blended learning and their attitude did not significantly influence their achievement score. Though this was also not consistent with the finding of Alsalthi, et al (2019) where students with favourable attitudes towards blended had significantly higher achievement scores than students whose attitude were not favourable towards blended learning. But this could be explained on the ground that the blended learning approach was not new to

the sampled students and was already having a cumulative effect on their achievement. The uniform practice of the understudied institution since its inception was the adoption of blended learning as the main instructional mode.

Conclusion

This study investigated the perception, challenges and achievement of the blended learning approach by students. A descriptive survey design was employed and 264 undergraduates participated. Blended Learning Perception (BLP) was the main validated instrument used for the study. Five research questions raised were answered using descriptive statistics.

It was revealed from the study that the sampled undergraduates had a positive attitude towards blended instructional approach despite the challenges they were faced with in the utilization of this approach. It is therefore recommended that students and academic staff should be trained on the adoption and appropriate utilization of blended instructional mode at the beginning of each academic year.

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