

BLENDLED LEARNING PEDAGOGICAL MODELS FOR EFFECTIVE TEACHING OF BUSINESS EDUCATION IN NIGERIA

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Abstract

This study examined the implementation of blended learning pedagogical models for effective teaching of business education in Nigeria. Blended learning which combines face-to-face instruction with online learning, has become increasingly relevant in response to technological advancement and educational disruptions. The study investigates the types of blended learning models adopted, and the extent of their implementation in teaching of business education. Two research questions and two hypotheses guided the study. Population consisted of 52 business education lecturers from Rivers State University and Ignatius Ajuru University of Education. The instrument used in sourcing for information was a self-structured questionnaire which was validated by experts from Business Education and measurement and evaluation University of Port Harcourt. Cronbach alpha was used to ascertain the Very High Extent, High Extent, Low Extent and Very Low Extent with 30 items were used. Mean and standard deviation were used to answer the research questions while t-test was used to test the hypotheses. Findings of the study revealed that there is a very high extent use of station rotation and of flex model in the application of blended learning pedagogical model in teaching of business education in Nigeria Universities. It was recommended that business educators should adopt compulsory use of station rotation and flex model in the teaching and learning of business education.

Keywords: Blended Learning, Pedagogical, Models, Effective Teaching and Business Education

Introduction

In Nigeria, business education plays a vital role in equipping students with vocational, entrepreneurial and managerial skills required for national economic development. The dynamic nature of business practice demands innovative teaching approaches that enhance learners' engagement, practical competence, and adaptability. Blended learning, which integrates traditional classroom teaching with digital and online instructional methods, has emerged as an effective pedagogical approach globally.

The Nigerian education system has increasingly embraced Information and Communication Technology (ICT) as reflected in the national policy on education, which emphasizes the integration of technology into teaching and learning. The COVID-19 pandemic further highlighted the need for blended learning approaches in Nigerian schools and tertiary institutions. However, despite its potential benefits, the implementation of blended learning pedagogical models in business education remains uneven across Nigeria due to infrastructural, institutional, and human capacity challenges.

Although blended learning has been identified as an effective instructional strategy, many Nigerian schools and tertiary institutions offering business education struggle with its effective implementation. Challenges such as inadequate ICT infrastructure, poor internet connectivity, insufficient teacher training, unreliable power supply and limited institutional support hinder the successful adoption of blended learning pedagogic. Consequently, business education teaching often remains teacher-centered and less interactive limiting student's acquisition of relevant business skills. The study intends to look at how blended learning pedagogical models can improve the teaching of business education Nigeria universities. Objectively, the study is basically on the strictly examination of the extent to which station rotation enhances effective teaching of business education in Nigeria and the extent flex model enhances effective teaching of business education in Nigeria.

Blended learning is an instruction approach that combines face-to-face teaching with online learning activities to enhance flexibility, engagement, and learning effectiveness. Blended learning is an educational approach that merges traditional face-to-face classroom instruction with online digital learning, creating a flexible 'hybrid' model that offers the best of both in-person interaction and technology-driven, self-paced learning. It allows for personalized experiences where students use only resources and activities at their own pace, while still benefiting from direct teacher guidance and peer collaboration in a physical setting, enhancing engagement and catering to different learning styles.

Blended Learning, a combination of virtual and physical learning conditions (Al-Qatawneh et al 2020; Yu et al (2022) is defined as a learning strategy integrating two different educational models, e.g. distance and traditional learning (Bonk & Graham, 2006). There are three most popular definitions of blended learning (Bonk & Graham 2012). Blended instructional modalities (Yu 2015), Thomson, (2020); Min & Yu (2023a), instructional methods (Li & Yu, 2023) and online learning with face-to-face instructional approaches (Young, 2002; Ward & LaBranche, 2003).

Performance in blended learning can be defined as the measurable outcomes of a student's achievement in both online and offline learning environments (Spanjers et al, 2015). Assessment, evaluation, and analysis can be used to describe performance in blended learning. Some potential ways to assess performance in blended learning include evaluating the quality of student work, analyzing student participation in online discussions, and measuring improvement in learning outcomes from before and after blended learning experiences. The assessment of performance in blended learning should also consider factors such as critical thinking, knowledge delivery, disposition improvement, knowledge and skill improvement, as these have been shown to affect overall success in the blended learning environment.

Most studies positively reported blended learning performances. Performances in this study include the variables: critical thinking skills, knowledge delivery position improvement, knowledge and skills improvement, language use, listening skills, speaking skills, and topic development. Blended learning, outperforming full online learning in the aspects of motivation, attitudes, and satisfaction, can improve nurses' clinical knowledge compared with the traditional learning approach in the UK (McCutcheon et al 2018). Blended learning can optimize the learning flexibility in terms of time and space, leading to stable learning performance of undergraduates in the Zurich University in Germany Mueller et al 2020). It was revealed that both classroom and online learning could enhance American students' learning performance, but the blended learning brought about the largest gain in performance in the USA (Hill et al 2017). Blended learning could give rise to significantly higher learning performance than e-learning, while the flipped classroom could improve intrinsic motivation and self-efficiency in Can Tho University in Vietnam ((Thai et al 2017).

Aim and Objectives of the Study

The aim of this study is to examine blended learning pedagogical models for effective teaching of business education in Nigeria. Specifically, the objectives are therefore, to:

- i. examine the extent that station rotation enhances effective teaching of business education in Nigeria?
- ii. explore the extent that flex model enhances effective teaching of business education in Nigeria?

Research Questions.

The study is guided by the following research questions:

- i. What is the extent of station rotation in enhancing effective teaching of business education in Nigeria?
- ii. What is the extent of flex model in enhancing effective teaching of business education in Nigeria?

Hypothesis

Ho₁: There is no significant difference between the mean value of male and female teachers on the extent station rotation enhances effective teaching of business education in Nigeria.

Ho₂: There is no significance differences between the mean value of male and female teachers

on the flex model enhances effective teaching of business education in Nigeria.

Blended Learning Pedagogical Models

Common models include the rotation model, flipped classroom model, glees model, and enriched visual model.

Rotation Model: Students rotate through different learning stations, including online learning. The rotational model is a type of blended learning where students rotate between internet learning stations or activities on a fixed schedule or at the teacher's direction. At least one of these stations involves online or digital learning, while others may include group work, independent practice, or teacher-led instruction. The model allows personalized learning, keeps students actively engaged and also helps teachers work with small groups. The model uses the method of face-to-face interaction and also allows the student access to other methods of learning (Google.com).

Flipped Classroom: Students learn new content online at home (like videos) and use class time for interactive problem solving with the teacher. The flipped classroom model reverses the traditional teaching approach. Instead of learning new content in class and doing homework at home, students learn new material at home (usually through videos or readings) and practice and apply the knowledge class with teacher support. In this model, instructional content is accessed outside the classroom, it uses the discussion and problem solving method and also, teacher's acts as a facilitator rather than a lecturer. It allows more time for hands-on learning in class, students' can learn at their own pace at home and it also encourages active participation and collaborations (Google.com).

Glees Model: The Glees Model (guided learning with educational Electronic System) focuses on integrating technology-guided instruction with teacher support. In this model, digital tools guide students through lessons while teachers monitor progress and provide assistance when needed.

Learning is guided by electronic systems (such as learning management systems), students receive immediate feedback from digital platforms while teachers use data from the system to support learning. This type of model supports self-paced learning, it enhances monitoring of students' progress and it improves digital literacy skills (Google.com).

Enriched Virtual Model: The enriched virtual model combines online learning with occasional face-to-face sessions. Unlike the flipped model, students complete most coursework online but still meet teachers in person for guidance, assessments, or collaborative activities. In this type of learning majority of instruction is online, though face-to-face sessions are scheduled but not daily and students have more control over time and pace. The model allows for flexibility in learning instructions, it supports independent learners and is suitable for students who need less daily supervision especially the working class students (Google.com).

Flex Model: Students' learn primarily online but receive in-person support from the teacher.

A La Carte Model: Students take most classes in person but supplement with entirely online courses (Google.com).

Benefits of Blended Learning

- i. Increased engagement: Interactive online content makes learning more fun.
- ii. Self-paced learning: Students' can revisit challenging concepts or move ahead quickly.
- iii. Teacher Efficiency: Allows educators to provide more individualized support and track progress efficiently.
- iv. Prepares for the Future: Develops digital literacy and online collaboration skills.

Business Education in Nigeria

Business education in Nigeria aims at developing entrepreneurial skills, office competence, and managerial abilities for self-reliance and national development. Business education in Nigeria is a vocational business principle, involving accounting, marketing, management, with teaching skills to create employable graduates

for self-reliance, teaching, and corporate jobs, aiming to boost entrepreneurship and national development. Although, it faces challenges like curriculum lag and unemployment, prompting reforms towards practical, entrepreneurship-focused training for economic growth. Business education equips students with practical business knowledge (typing, office practice, management, accounting for the workforce. It prepares and train professionals to teach business subjects in secondary schools and colleges.

Osuala, in Yusuf (2003) views business education as part of the field of education that deals with business experiences both for specialized occupational uses and for general use. He further stated that, it deals with relationship, techniques, attitudes and knowledge necessary for individual to understand the social institutions of business and successfully adjust himself to it. The national policy on education defined business education as that aspect of education which deals with the acquisition of practical and applied skills as well as basic scientific knowledge. It is a programme that deals with knowledge that makes the recipients job provider rather than job seekers.

Akume, (2002) defined business education as a programme designed to prepare individuals for gainful employment as semi- skilled workers in occupations that are not generally considered professional by the society. This definition implied that business education is vocational education. This is because vocational education is also seen as education designed to prepare skilled personnel at lower levels of qualification for one or group of occupations trades or jobs. Akume, (2002) further stated that, an NCE graduate of business education apart from being a teacher at junior secondary school (JSS) level could earn a living by being a secretary/typist, stenographer, a receptionist, an executive officer-accountant and so on. Oluwafemi (2002) noted that business education is a panacea for poverty alleviation. This looks at the skill which business education offers which enable the individuals to work in the office or to be self-employed.

Business education is seen as a tool for development. Abdullahi, (2002) believed that our society is going through a difficult period and we are in a complex web off decaying infrastructure, social reforms and the adoption of more scientific and technological mode of living and solving life problem. The interplay of business education and technology will result in the much-desired national development. In addition, Okoro, (2003) put that it is believed that business education will lead to self-reliance, thereby, graduates will no longer wait to be employed by governments, instead, they can set up business of their own and get others employed, thus improving the nation's economy. Osoala (2004) maintained that business education is that type of education meant to train the necessary manpower for industry, business and private business establishment. This emphasized the purpose of business education in meeting the manpower needs and also the knowledge to be established and run private businesses that will lead to self-reliant.

Challenges of Blended learning in Nigeria

These include inadequate infrastructure, limited ICT skills, power supply issues, funding constraints, and policy implementation gaps. Blended learning challenges include student issues (self-regulation) as students struggle with time management, staying focused, and avoiding distractions like social media without direct supervision from the lecturers, (digital literacy) as gaps in technological skills can hinder participation and learning (isolation) in this case, reduced face-to-face interaction can lead to feelings of isolation and weaken student-teacher bonds. Also, managing different platforms and activities can overwhelm students.

In the case of the teachers, developing and integrating digital materials providing feedback and managing blended activities takes significant time and effort. Teacher's anxiety, lack of proficiency and technical issues with platforms (like video conferencing) are common. Also, creating effective digital content and designing integrated activities requires new skills therefore, teachers usually have the issue of content adaptability. It has also been discovered that delivering timely, meaningful feedback on online assignments can be difficult.

For institutions, blended learning has been very difficult due to the challenges of cost and infrastructure. Expensive technology, software, and reliable internet accessibility are needed and these due to lack of finance has made blended learning very difficult. Insufficient professional development for teachers and technical support for everyone is also one of the challenges of blended learning. Again, lack of clear strategies, policies and support from administration is also another challenge of blended learning. Also,

ensuring that students have access to necessary devices and internet (the digital divide) is also another challenges.

It is important to note that for blended learning to be fully achieved, we must effectively integrate online and offline components, ensuring students achieve genuine understanding, not just superficial engagement and also keeping all learners, especially those with mixed abilities, motivated and involved.

Theoretical Framework

The study is anchored on constructivist learning theory and the technology acceptance model (TAM).

Constructivist Learning Theory

Constructivist learning theory posits that learners actively construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences, rather than passively receiving information. Key figures who propounded this theory include: Jean Piaget (cognitive constructivism, focusing on individual mental instructions), Lev Vygotsky, he emphasized social constructivism, Jerome Bruner, he emphasized on discovery learning and John Dewey who emphasized on experimental learning.

The theory emphasized that learners are not empty vessels; they build new ideas or concepts based on current and past knowledge. New information is integrated with existing mental frameworks (schemas) through processes like assimilation (fitting new information into old schemas) and accommodation (changing schemas to fit new info). Knowledge is an individual interpretation of experiences, not just objectives facts.

There are different types of constructivism learners' theory, it includes:

Cognitive Constructivism (Piaget): Focuses on individual cognitive development and how we internally organize information (Google.com, 2026).

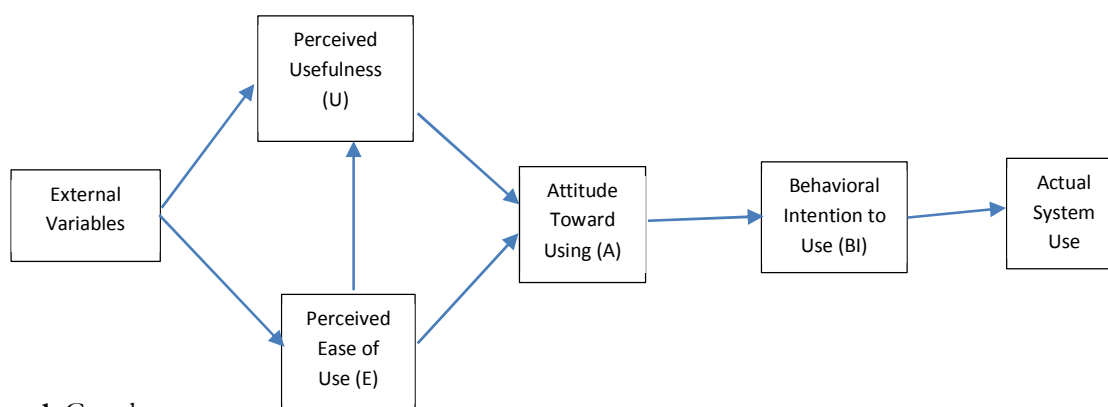
Social Constructivism (Vygotsky): Highlights the crucial role of social interaction, culture, and language in knowledge construction.

Discovery learning (Bruner): Emphasizes hands on exploration and problem solving.

The Technology Acceptance Model (TAM)

The technology acceptance model explains why people accept or reject new technologies, focusing on two key beliefs; perceived usefulness (belief that it improves performance) and perceived ease of use (belief its effortless to use), which influence attitude and behavioural intention to use it. It was propounded by Fred Davis in 1989 extending the theory to reasoned action (TRA) to technology adaptation.

The diagram below shows the key concepts of the model



Sourced: Google.com

- Perceived Usefulness (PU): The degree to which a user believes using the system will enhance their job performance or efficiency.

- Perceived Ease of Use (PEOU): The degree to which a user believes using the system will be free of effort.
- Attitude towards use: A user's positive or negative feeling about using the technology.
- Behavioural Intention to Use: The likelihood a user will intend to use the system.
- Actual system Use: The ultimate outcome of the process

The model helps us to understand how this perception shapes a user

Methodology

The paper adopted a descriptive survey design under which the pathway through which the data for this survey will be tested and estimated. The population of the study comprises all the lecturers in the Department of Business Education from Ignatius Ajuru University of Education and all the Lecturers in the Department of Business Education, Rivers State University which numbered 52 lecturers. The instrument used to elicit information for the study was a self-structured questionnaire containing 30 items.

The internal consistency of the questionnaire was ascertained using cronbach Alpha reliability which yielded coefficient of 0.74 were used for data analysis. Mean score of 2.50 and above were used for the acceptance of items on Station Rotation and Flex Model on Blended Learning.

Results and Discussion

Research Question One: What is the extent of station rotation in enhancing effective teaching of business education in Nigeria?

Table 4.1: Station Rotation on Blended Learning

		Group Statistics			
		N	Mean	Std. Deviation	Std. Error Mean
RSU	1.00	31	2.9355	.77182	.13862
IAUE	2.00	21	3.0952	.76842	.16768

Field work Result from SPSS

Data in table 1 shows a mean score of 2.9 and a standard deviation of 0.77 since the mean is greater than the criterion mean of 2.50, it then shows that station rotation enhances effective teaching to a high extent in Rivers State University. While the mean score of 3.1 and a standard deviation of 0.76 shows that the station rotation enhances effective teaching in Ignatius Ajuru University to a very high extent. The aggregate mean of both institutions is 3.0 which shows that station rotation enhances effective teaching in both universities to a very high extent.

Research Question Two: What is the extent of flex model in enhancing effective teaching of business education in Nigeria?

Table 4.2: Flex Model on Blended Learning

		Group Statistics			
		N	Mean	Std. Deviation	Std. Error Mean
RSU	1.00	31	3.0323	.75206	.13507
IAUE	2.00	21	3.1905	.87287	.19048

Field work result from SPSS

Data in table 4.2 shows a mean score of 3.0 and a standard deviation of 0.75 since the mean is greater than the criterion mean of 2.50, it shows that flex model enhances effective teaching to a very high extent in Rivers State University. While the mean score of 3.1 and a standard deviation of 0.87 also shows that flex model enhances effective teaching in Ignatius Ajuru University to a very high extent. The aggregate mean of both institutions is 3.1 which shows that flex model enhances effective teaching in both universities to a very high extent.

Hypothesis One: There is no significant difference between the mean value of male and female teachers on the extent station rotation enhances effective teaching of business education in Nigeria.

Table 4.3: t-test analysis of mean rating of business educators in public universities on the extent to which blended learning is used for effective teaching and learning of business education.

<i>Variance</i>	<i>N</i>	<i>X</i>	<i>SD</i>	<i>DF</i>	<i>t-value</i>	<i>p-value</i>	<i>α-value</i>	<i>decision</i>
RSU	31	2.9	0.77	50	-0.73	0.467	0.05	Fail to
IAUE	21	3.1	0.76	43.2				reject

Data presented in table 4.3 which showed a p-value of 0.467 and α -value of 0.05 showed that there is no significant difference between the mean values of male and female lecturers in the extent to which station rotation enhances effective teaching of business education in faculty of education in Nigerian universities.

Hypothesis two: There is no significant difference between the mean value of male and female teachers on the extent station rotation enhances effective teaching of business education in Nigeria.

Table 4.4: t-test analysis of mean rating of business educators in public universities on the extent to which blended learning is used for effective teaching and learning of business education.

<i>Variance</i>	<i>N</i>	<i>X</i>	<i>SD</i>	<i>DF</i>	<i>t-value</i>	<i>p-value</i>	<i>α-value</i>	<i>decision</i>
UST	31	3.0	0.75	50	-0.698	0.489	2.75	Accept
IAUE	21	3.1	0.87	38.7				

Data presented in table 4.3 which showed a p-value of 0.489 and α -value of 2.75 showed that there is a significant difference between the mean values of male and female lecturers in the extent to which flex model enhances effective teaching of business education in faculty of education in Nigerian universities.

Findings

The findings of research question one showed that the respondents admitted that the use of station rotation in teaching of business education in public universities in Nigeria is to a high extent. However, the hypothesis one test results indicate that there is no significant difference in the mean ratings of male and female business educators on the extent station rotation is used in teaching of business education in public universities in Nigeria. The findings of this study is in agreement with the findings of Selvakumar et al (2020) who affirmed that blended learning are flexibility in terms of scheduling a course, planning for space and more options to achieve the same learning outcome; provide verity of learning opportunities as per engage himself/herself and can actively participate; balance the face to face and online teaching-learning; and make effective use of the conventional and online teaching and learning for effective teaching and learning outcome.

The findings in hypothesis two revealed that business educators in Nigerian universities are in agreement that flex model is used for effective teaching and learning of business education in Nigerian universities in Nigeria to a high extent. This means that business educators in Nigerian universities should always utilize flex model methods in the teaching and learning of business education for positive teaching and learning outcome. The result revealed that there is no significant difference between the mean ratings of business educators in public universities the findings of this study is in consonance with the findings of Aitthal and Mishra (2024) which averred that flex model learning involves the integration of simulations, role-playing and project-based learning. The goal is to create a learning environment where students can gain relevant, practical experience that prepares them for the demands of the business world.

Conclusion

Based on the findings, the study concludes that blended learning pedagogical models which encompasses station rotation, flex model etc for teaching of business education are very crucial and relevant for teaching and learning especially in this digital age. These strategies as flex model enhances teaching and learning of business education and as well enables the teachers horn their existing skills to function effectively in the digital world.

Recommendations

The following recommendations were made based on the findings.

- i. Business educators should adopt compulsory use of blended learning in the teaching and learning of business education, this will help the students in problems solving criteria thinking, collaboration, and the application of knowledge in authentic contexts and in the learning of business education courses.
- ii. Business educators should adapt existing business education curricula to incorporate flex model and station rotation learning method. There should also be regular workshops, seminars and in-service training sessions which will enable business educators incorporate station rotation and flex model in the teaching of business education in Nigeria universities.
- iii. Government should improve ICT infrastructure in schools, regular training should be organized for business education teachers, institutions should adopt clear blended learning policies and power and internet challenges should be addressed through alternative solutions.

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