LEVEL OF APPLICATION OF BLENDED LEARNING PEDAGOGICAL DESIGN BY BUSINESS EDUCATORS IN TERTIARY INSTITUTIONS IN ANAMBRA STATE

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Abstract
Instructional delivery has been under series of modifications since the advent of Information and Communication Technology (ICT). Particularly, with the need to shapeclassrooms to match the 21st century job demands, the use of technology has become compulsory for teachers to incorporate in the classroom. This study ascertained the level of application of blended learning pedagogical design by business educators in tertiary institutions in Anambra State. One research question guided the study and two null hypotheses were tested. Descriptive survey research design was adopted for the study. The population of the study comprised 99 business educators from public tertiary institution in Anambra State. No sampling was done due to the relatively small size of the population. The instrument for data collection was a structured questionnaire titled "Level of application of Blended-learning Pedagogical Design Questionnaire" (LABPDQ) which was validated by three experts. Cronbachalpha was used to determine the reliability of the instrument and it yielded reliability coefficient of 0.89. The researchers together with two research assistants collected data for the study using direct approach method and 91% return rate was recorded. Mean and standard deviation were used to answer the research question while t-test was used in testing the hypotheses at 0.05 level of significance. The findings of the study revealed among others that business educators apply blended learningpedagogical design at a moderate level in tertiary institutions in Anambra State. Based on the findings, it was recommended among others that administrators of business education programmes should regularly organize in-service training for lecturers on current trends in the application of blended learning pedagogical design in the classrooms. Lecturers should from time to time avail themselves the opportunity to get acquainted with the state-of-the-art technology by attending the training programmes, workshops and seminars.
Key words: Blended learning, pedagogical designs, business education, business educators

Introduction

Education is a veritable tool for human and national development. National development relies strongly on educational advancement, which in turn could rely on technological development. As an aspect of vocational education, business education plays a vital role in national development. Business education is an academic program offered in tertiary educational institutions geared towards the acquisition of knowledge and skills needed in the place of work (Oladunjoye, 2016). One crucial need in the current business world is the ability to use computer programs for different purposes. This implies that business educators must ensure quality teaching in line with the current global technological changes. To promote business

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education in general for effective acquisition of appropriate e-skills, business educators need to change their conventional way of instructional delivery. Interestingly, the 21st century is characterized by technological innovations that are applicable in education one of which is blended learning.

Blended learning is a term used to represent both teaching and learning processes that combine online learning with in-class learning. Blended learning is a learning encounter in which face to face or the traditional teacher-learner instruction is combined with technology mediated instruction. (Bupo, 2019; Lalima&Dangwal 2017, Noni, Abdullahi&Ismail, 2017). Blended learning may be in the form of a flipped classroom where students learn content online by watching video, lectures, usually at home and homework is done in class with teachers and students discussing and solving questions (Adirika&Ikwuka, 2020). Blended learning has various models which includes rotation model, flex model, self-blend model and enriched-virtual model. The integration of technology into educational system has brought blended learning to the limelight as its gaining popularity among business educators. Studies have also shown that blended learning has a positive effect on students' academic performance as ithas been proven to be student-centered, increase students' engagement with learning process, enhance critical thinking and improve learning outcomes (Lopez-Perez, Perez-Lopez & Rodriguez-Ariza, 2013 &Kiviniemi, 2014).Therefore students should be exposed to blended learning approach in order to improve their learning outcomes. Proper adoption and application of blended learning as an important factor in this information age, holds a great promise for improving teaching and learning in educational institutions.

In educational institutions, the application of blended learning entails the use of a whole range of technologies involved in information processing and electronic communication such as computers, internet, e-mail, computer software, satellite, mobile communication gadgets and other allied electronic devices for dissemination of knowledge and information. According to Eze, Okoliand Ehushie (2017), the gains derivable from the utilization of these facilities and technologies in teaching and learning are innumerable. It focuses on the use of ICT in teaching and learning and requires that instructors or teachers must have a clear understanding of the tools used in creating the content and developing components of online courses. This includes knowledge of pedagogical design, process analysis design as well as development and implementation of these designs in the classroom. Pedagogical Design (PD) is the process of analyzing learning goals, specifying the expected learning outcomes and organizing both the learning content and resources in a manner to ensure the achievement of the stated goals (Akudolu, 2012). Pedagogical design simply means the interactive process between teachers and learners through the planning or working out of ICT resources. This implies that blended learning pedagogical design aims at bridging the gap between the learning content and technology to ensure effective learning. It is the platform through which learning occurs as the learner comes in contact with both the content and the technologies.

In Nigeria, the awareness to advance online learning started gaining momentum two decades ago (Ahmad 2012). Today, many tertiary institutions have set up their ICT centers having Local Area Network (LAN) in their libraries, finance departments, MIS units, and some faculties/departments, among others (Ilechukwu and Njoku 2014). With these developments, it has become imperative to holistically look at applying blended learning pedagogical design in tertiary institutions particularly where todays learners are surrounded with digital media and are used to the digital world. Recent developments brought about by globalization and changing demands for new skill sets in the job market have necessitated the adoption of a new teaching

and learning paradigm. Obidile, Obi and Ikpat (2019) opined that varying modes of delivery options should be accessible to every Nigerian so as to equip them with the necessary skills needed for self-reliance. However, since the field of ICT continues to evolve, new and sophisticated technologies are emerging and this makes associated activities of online learning complex to delve into (Odoi, Ussiph&Panford 2019). Nevertheless, it is recommended that the application of blended learning pedagogical design in tertiary institutions should be done gradually because it involves several groups of interest like students, lecturers, technicians and policy makers among others. Furthermore, several salient issues concerning costs, quality assurance and organizational culture among others always emerge during the process.

Fadare (2015) argued that one of the major problems facing successful application of blended learning pedagogical design is the incompetence of the educators to utilize the ICT infrastructure to impart the required knowledge to the students. Most business educators are not trained with modern office equipment and technologies and thus still depend only on traditional methods for delivering their lessons to students even when learning topics are suitable for e-learning approach. Overtime, business educators have predominantly delivered instructions using only the conventional/face to face teaching method. This teaching method subjects students to passive learners rather than active learners where they contribute to knowledge. This unsatisfactory state of affairs has far-reaching consequences for business education programme and its graduates as they might lack technological competencies required to perform effectively in the current era. Consequently, students might lack the requisite digital skills needed for jobs in the 21st century labour market because they were not exposed to modern technologies in the teaching/learning process.Personal observation of the researchers revealed that course materials are presented to students in hard copies and students are made to be physically present in the classroom for learning to take place. This ugly situation seems to put doubt on the level of business educators' application of blended learning pedagogical design for instructional delivery which in most cases seems to be non-existence. Hence, the need for the study.

Research Question

1. What is the level of application of blended learning for instructional delivery by business educators in tertiary institutions in Anambra State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. Male and female business educators in tertiary institutions in Anambra State will not differ significantly on their level of application of blended learning for instructional delivery.
2. Business educators in tertiary institutions in Anambra State will not differ significantly on their level of application of blended learning for instructional delivery as a result of age (35yrs and below, and above 35yrs).

Method

Descriptive survey research design was utilized for the study. According to Nworgu (2015), a survey design is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. The design was deemed appropriate, since the researchers collected data from the population of the study and draw inferences on business educators' level of application of blended-learning pedagogical designs for instructional delivery in tertiary institutions in

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Anambra State. The study was carried out in public tertiary institutions in Anambra State. The population of the study comprised all the 99 business educators in all four public tertiary institutions in Anambra State. This is according to data collected from Academic Planning Unit of each institution. There was no sampling due to the relatively small size of the population of the study. A 16-items researcher developed questionnaire titled "Level of Application of Blended learning Pedagogical Design Questionnaire (LAEPDQ)" was used for data collection. The questionnaire is divided into two sections of A and B. Section A sought to elicit respondents' personal data such as gender and age while section B consisted of 8 items on blended learning. Respondents were required to indicate their opinions on a five point rating scale of Very High Level (VHL); High Level (HL); Moderate Level (ML), Low Level (LL) and Very Low Level (VLL) weighed 5, 4, 3, 2 and 1 respectively.

Face and content validity of the instrument (LAEPDQ) was determined. To ascertain this, the researchers presented the title, purpose of the study, research question, hypotheses and the copies of the questionnaire to three experts who are lecturers, two in the field of business education in the Department of Technology and Vocational Education and one in measurement and evaluation unit of the Department of Educational Foundations, in the Faculty of Education, NnamdiAzikiwe University, Awka. The experts were requested to examine and scrutinize the items in terms of content, relevance, suitability, clarity and coverage of the dimensions of the study. The experts made several corrections that led to modification of the items and restructuring of the lead statements in all the tables. The Cronbach Alpha was used to check the internal consistency of the instrument and reliability coefficient value of 0.89 was obtained.Thecoefficient value was adjudged high enough for the instrument usability in line with the recommendations of Nworgu (2015) that coefficient value of 0.82 or above is adequate for any research work.

The researchers with the help of two research assistants who are lecturers in tertiary institutions in Anambra State collected the data for the study. The two research assistants were briefed on the modalities for the administration of the questionnaire. Copies of the questionnaire distributed were 99 and only 90 copies were properly filled and retrieved indicating 91 percent return rate. Thus, 90 copies of the questionnaire successfully retrieved were used for data analysis. Mean and standard deviation were used for answering the research question and decision was based on the real limits of numbers on a five-point rating scale. The null hypotheses were tested using t-test. Where the t-calculated is equal to or greater than the t-critical at 0.05 level of significance at a given degree of freedom, the null hypothesis was rejected, but where otherwise, is was not rejected.

Results

Research Question 1

What is the level of application of blended learning for instructional delivery by business educators in tertiary institutions in Anambra State?

Analysis of data relating to this research question is presented in Table 1

Table 1: Mean responses of Business Educators on level of application of blended learning pedagogical design

S/No	Items on Blended Learning	Mean	SD	Decision
1.	Delivering pre – work online	2.88	1.40	Moderate level
2.	Rotating the students on a teacher-set	2.80	1.34	Moderate level

	fixed schedule and online instruction			
3.	Allowing students to choose one or more contents entirely online and supplementing classic face to face teaching of other contents	2.83	1.37	Moderate level
4.	Delivering entire content on an online platform but in the classroom.	2.90	1.46	Moderate level
S/No	**Items on Blended Learning**	**Mean**	**SD**	**Decision**
5.	Delivering entire content on an offline platform (pre-recorded videos, audio and video conferencing) but in the classroom	2.84	1.36	Moderate level
6.	Putting assessment/reviews online	2.79	1.39	Moderate level
7.	Online lab (delivering lab or field components of course online)	2.70	1.31	Moderate level
8.	Putting reference materials on web	2.91	1.36	Moderate level
Cluster Mean		**2.83**		**Moderate level**

Table 1 shows a cluster mean of 2.83 indicating that business educators in tertiary institutions in AnambraState apply blended learning for instructional delivery at a moderate level. Item by item analysis in Table 1 shows that business educators apply all the items 1 – 8, with mean scores for all the items ranged between 2.70 – 2.91 which means that all of them are applied at a moderate level. The standard deviations of 1.31 to 1.46 showed homogeneity in business educators' responses indicating greater consensus of opinion.

Table 2: Summary of t-test result on the level of application of blended learning by male and female business educators in tertiatry institutions in Anambra State.

Blended learning	N	$\bar{X}$	SD	Df	P-value	Decision
Male	33	2.77	1.07	88	0.171	Not significant
Female	57	2.87	1.30			

Table 5 shows that male and female business educators in tertiary institutions in Anambra State do not differ significantly on their level of application of blended learning for instructional delivery. This is shown by the p-value of 0.171 which is greater than the significant level of 0.05. This shows that there is no significant difference in the mean responses of business educators. Therefore, the null hypothesis of no significant difference between two groups is accepted.

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Table 3: Summary of t-test result of significant difference in respondents' mean scores on their level of application of blended learning pedagogical design.

Blended learning	N	$\bar{X}$	SD	df	P-value	Decision
35yrs and Below	33	2.66	1.20	88	0.924	Not significant
Above 35yrs	57	2.92	1.22			

Table 6 shows that business educators in tertiary institutions in Anambra State do not differ significantly on their level of application of blended learning in instructional delivery as a result of age. This is shown by the p-value of 0.924 which is greater than the significant level of 0.05. This shows that there is no significant difference in the mean responses of business educators as a result of age. Therefore, the null hypothesis of no significant difference between two groups is accepted.

Discussion

The results of the study indicated that business educators in tertiary institutions in Anambra State moderately applied blended learning in instructional delivery.Business educators applied all the items which includes; delivering pre – work online, rotating the students on a teacher-set fixed schedule and online instruction, allowing students to choose one or more contents entirely online and supplementing classic face to face teaching of other contents,delivering entire content on an online platform but in the classroom, delivering entire content on an offline platform (pre-recorded videos, audio and video conferencing) but in the classroom, putting assessment/reviews online, online lab (delivering lab or field components of course online) and putting reference materials on web, at a moderate level.

The findings agrees with that of Ng Ling Ying and Yang (2017) who reported that most academics were new to blended learning and had never implemented blended learning initiatives in their units. Ng Ling Ying and Yang further stated that the implementation of blended learning was certainly a new challenge for most educators as they have to change their delivery method to accommodate the use of technology. In support of this Schutte, Cronje, Mokoena, Barkhuizen and Mokoto (2017) held that lecturers perceived training in blended learning approaches as positive but however, many challenges were identified that can limit the effective implementation of blended learning such as resistance to change, lack of infrastructure, lack of computer literacy among others. However, findings disagree with Jeffery, Milne, Suddaby and Higgins (2014) who revealed that despite teachers' resistance to the use of technology in education, blended learning has increased rapidly, driven by evidence of its advantages over either online or classroom teaching alone.

Conclusion

Based on the findings of the study, it is clear that blended learning pedagogical design discussed in the study is still at its early stage of adoption and application among business educators. This is a sad development bearing in mind that ICT is not a new topic in Nigeria. The popularity of ICT technologies among business education students has increased their expectations to see these technologies used in the teaching learning process. Unfortunately, business educators are still lagging behind in the application of these pedagogical designs for instructional delivery. Also the new normal as a result of Covid-19 pandemic requires the full adoption and application of these pedagogical designs for instructional delivery in tertiary institutions.

Recommendations

1. Administrators of business education programmes should regularly organize in-service training to train and re-train business educators on current trends in the application of blended-learning pedagogical designs in the classrooms. Lecturers should from time to time avail themselves the opportunity to get acquainted with the state-of-the-art technology by attending the training programmes, workshops and seminars.
2. Government and business education curriculum planners should make policies on the integration of blended learning pedagogical design into the curriculum of business education programme in tertiary institutions compulsory.
3. The school administrators should ensure adequate provision of infrastructure like electricity, internet connections and buildings that support the application of blended-learning pedagogical designs.

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