



Research Article

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Innovative Pedagogy and Blended Learning Among the Undergraduate Students' of Wesley University Ondo, Nigeria

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Abstract

The study examines innovative pedagogy and blended learning among the undergraduate students' of Wesley University Ondo, Nigeria. The research design method used for this study was qualitative research methods. The population of the study comprises of six hundred and fifty-four (654) registered students for 2020/2021 academic session. The sample size of Two hundred and forty-eight (248) respondents was selected through the Krejcie and Morgan sampling techniques to select the sample size from the population. The returned rate of the instrument used to elicit the data from the respondents was 238(93.42%). The instrument used to collect data was questionnaire. This questionnaire was designed on a scale of 4 points Likert. The validity of the instrument was done and the reliability of the instrument was tested through the use of Cronbach Alpha reliability to determine the internal consistency of the instrument. The instrument revealed a coefficient of 0.762 which is acceptable. The method of data analysis used was analysis of variance (ANOVA) statistics to test the research questions. The statistical package for social sciences (SPSS) was used to analyse the data. The findings revealed that technical skill ($N = 242$; $F = 3.570$; $P = 0.008 @ 0.05$). Teaching flexibility ($N = 242$; $F = 1.609$; $P = 0.188 @ 0.05$). Self-efficacy ($N = 242$; $F = 1.199$; $P = 0.312 @ 0.05$) are positively significant with the blended learning. Research question one was deemed irrelevant, whereas the remaining questions held significant importance. Consequently, it was implied that learners exhibited specific IT skills facilitating their comprehension of blended learning. As a result, the study suggested that stakeholders in tertiary institutions should allocate funds toward the implementation of blended learning for both educators and students. Additionally, establishing a supportive technological ecosystem and establishing a technical hub for students would lead to reduced educational expenses and foster academic progress.

Keywords: Innovative, Pedagogy, Blended Learning and Undergraduate Students

1. Introduction

The earliest method of delivering instruction is the face-to-face approach, which takes place in a designated physical location where teachers or instructors interact with students or learners. However, due to technological advancements, an increase in the number of applicants, limited educational access, the need for ongoing training to keep up with changing knowledge requirements, and occupational challenges, there has been a shift toward exploring new trends in educational delivery. One of the most popular innovations is e-learning, which is a formalized teaching and learning system that utilizes electronic resources, primarily computers, and the internet. While the teaching may also occur face-to-face or non-traditional classroom settings, the core of e-learning involves electronic delivery.

Hence, the term blended learning refers to a teaching model that combines both face-to-face and online instruction and is often referred to as the "new traditional model" of course delivery (Dziuban, Graham, Moskal, Norberg & Sicilia, 2018). This method is widely employed in higher educational institutions, and its rapid emergence has made it difficult to monitor its growth accurately. In an earlier national study sponsored by the Sloan Consortium, approximately 65.2% of participating higher education institutions offered blended learning. The government, curriculum planners, school administrators, teachers, and students collaborate to produce learning through various means, including community-based learning materials, technology-enhanced classrooms, and human personnel (Ahmodu, Aribaba & Adeleke, 2023). Consequently, learning is blended as it utilizes a wide range of resources.

The transition from traditional face-to-face to blended learning poses technical challenges for users. Blended learning is an evolving concept that involves a shift from full e-learning to a combination of in-person and online instruction. This transition is not always smooth and can be a challenge for both instructors and learners. Technical issues such as network connectivity, device compatibility, and software compatibility can arise and impact the effectiveness of blended learning. In addition, the use of technology in the classroom requires new skills and training for lecturers and students (Garrison & Kanuka, 2004; Singh & Thurman, 2019). Blended learning combines traditional face-to-face instruction with online learning, and the technology used to support this mode of education is crucial. As referred to by Kukulska-Hulme and Traxler (2005), the term "technological trilby" describes the technological skills and competencies required by learners and instructors to engage with blended learning effectively. The technology used in e-learning includes electronic communication tools like computers, the internet, intranet, remote evaluation applications, adaptation tools, learning management systems (LMS), and course management systems (CMS) (Ally, 2008). These tools provide the infrastructure for blended learning, enabling learners to access educational resources and engage with instructors and peers in a virtual environment.

Blended learning requires effective curriculum planning and design and

instructional strategies that differ from those used in traditional face-to-face instruction to effectively incorporate technology and promote a learner-centered approach (Garrison & Kanuka, 2004). It involves a transformation of the teaching and learning process using technology and applying relevant learning theories (Bonk & Graham, 2006). Therefore, it is important to consider online lectures' unique characteristics and diversity when implementing blended learning (Garrison & Vaughan, 2008). The study is focused on examining innovative pedagogy and technical implications of blended learning among undergraduate accounting students in Ondo State. This study is delimited to public and private universities in Ondo State.

2. Problem Statement

Blended learning is a teaching and learning method that combines face-to-face instruction with online learning, which has become increasingly popular in higher education institutions (Oluwagbemi, Aremu & Adeyemo, 2020; Ahmodu, Aribaba & Adeleke, 2023). However, there is a need to explore the technical implications and innovative pedagogy that can support the effective delivery of blended learning in the Nigerian context. Nigeria is facing challenges related to outdated curricula, limited access to resources, and an inadequate number of qualified teachers (Dziuban, Graham, Moskal, Norberg & Sicilia, 2018). The use of blended learning can help address these challenges by providing students with access to a variety of learning resources and enabling them to develop their learning capacity (Ololube & Akintayo, 2017; Ahmodu, Aribaba & Adeleke, 2023). Therefore, this study aims to explore the innovative pedagogy and technical implications of blended learning among undergraduate students of Wesley University Ondo. The study focused on Wesley University and contributes to the literature on blended learning in Nigeria and helps improve the quality of education in the country.

According to an article by Altbach and de Wit (2017), despite the advancements in educational technology, access to these innovations is still a concern. One potential benefit of blended learning is its ability to expand access to higher education for underserved and nontraditional students. Students from low socioeconomic backgrounds are more likely to pursue higher-level postsecondary degrees if they have access to online education. The expansion of distance learning has provided millions of people with educational opportunities they may not have had otherwise. Moreover, there is evidence that distance learning has led to significant cost savings while maintaining or improving student outcomes (Tait & Mills, 2019).

Blended learning has been recognized as an essential approach in the teaching and learning process, although there may be differences in its implementation due to institutional approaches (Aggarwal, 2016). However, technical and technological support, logistical issues, national and subnational policies on innovative pedagogy, and the technological challenges posed to students by the use of blended learning cannot be

overemphasized (Hussain & Khan, 2018; Ndubisi & Iteba, 2019). Therefore, this study examines the pedagogy and technical implications of blended learning, particularly in the undergraduate degree program at Wesley University Ondo. The study seeks to answer questions how technological skills influenced blended learning? What are the impact of students' self-efficacy on blended learning and how teaching flexibility enhance the blended learning.

3. Purpose of the Study

The study examines innovative pedagogy and blended learning among the undergraduate students' of Wesley University Ondo. The specific objectives are;

1. to assess the influence of learners technical skill on blended learning
2. to evaluate how the teaching flexibility enhance the usage of blended learning
3. to investigate how the learner self-efficacy influence their attitude toward blended learning

4. Research Questions

1. To what extent does learners' technical skill influence the blended learning?
2. How does teaching flexibility enhance the usage of blended learning?
3. Does learner self-efficacy influence their attitude toward blended learning?

5. Literature Review

Olugbeko and Izu's (2013) asserted that Nigerian higher education institutions primarily relied on e-learning techniques that involved prepared lectures stored on CD-ROMs and played on an as-needed basis. This approach was necessitated by the lack of sufficient computers to cater to all students, resulting in a less interactive online learning experience. Furthermore, a significant portion of students hailed from socioeconomically disadvantaged backgrounds and lacked familiarity or exposure to information and communication technology (ICT) solutions. Consequently, they often faced challenges in accessing computers and internet connectivity at home during their studies. As a result, students were compelled to resort to public internet cafés, which were also hindered by limited bandwidth, thereby impeding the effective implementation of e-learning in the country.

In Nigeria, there is a need to embrace open and distance learning to incorporate e-learning into educational instruction. However, according to the study conducted by Mtebe and Raphael (2013), higher education in Tanzania has adopted blended learning due to limitations and slow internet speeds. Compact disk (CD) video players were useful as an alternative approach to learning resources. Consequently, traditional face-to-face teaching methods are still prevalent, and blended learning programs are

primarily viewed as tools to enhance educational activities. Similarly, at the Open University of Tanzania (OUT), instructors utilize blended learning tools such as computers and internet technology for teaching, accessing educational resources, communication via the staff email system, and administering exams, rather than solely creating study materials and delivering presentations to students (Nyandara, 2012). Moreover, it was observed that students face difficulties in accessing the internet, both within and outside university learning centers, due to associated costs. This led to the implementation of Moodle software at Sokoine University of Agriculture (SUA) as a solution.

The Learning Management System (LMS) is a valuable tool within blended learning to facilitate the implementation and support of e-learning systems. Furthermore, tertiary institutions have established e-learning programs to enhance research and learning processes for professors and students (Nagumwa & Lwoga, 2012). However, the limited availability of computers and other ICT resources, such as internet connectivity, hinders the complete implementation of the e-learning system, preventing all students and staff from simultaneous usage. In light of these challenges, tertiary institutions initially introduced the e-learning system in 2011 but encountered difficulties and deemed it unsuccessful. Consequently, blended learning and face-to-face approaches have been adopted (Oyeleke et al., 2014).

According to Shea and Bidjerano (2016), African American community college students who enrolled in distance education courses completed their degrees significantly lower than those who did not participate in such courses. Conversely, a study focusing on K-12 online learning success factors found that only one out of fifteen courses taken by ethnic minority students exhibited notable gaps in student test scores (Liu & Cavanaugh, 2011). Further research is necessary to understand how diverse populations can learn effectively across different modalities, including face-to-face and blended learning environments. Floridi (2014) argued that the world has transformed into an "infosphere," and our existence has become intertwined with being "inforgs." Our perception of reality is shifting from the tangible and unchanging to the information we can convey through pedagogy.

Qureshi et al. (2012) conducted a study in which Pakistani universities identified various challenges in implementing e-learning. These challenges primarily revolve around technology, encompassing limited access to up-to-date technology, fast internet connections, and consistent electricity supply. Additional concerns include maintenance, administration, security, a lack of technical support, and restricted student computer access both on campus and at home. These difficulties arise because students find it challenging to accept and adapt to e-learning technology, particularly in developing nations where most families do not have direct access to computers. The level of existing computer literacy and general comprehension of e-learning technology play crucial roles in motivating students and other learners to engage in e-learning. Without adequate knowledge and understanding, there is a high likelihood of resistance toward

transitioning from traditional educational methods. As a result, the implementation of e-learning in developing countries is generally hindered by a lack of expertise in information and communication technology (ICT) and insufficient ICT infrastructure.

Donovan, Bransford, and Pellegrino (1998) observed that teachers need to possess a high level of expertise when employing blended learning methods to ensure students genuinely grasp the concepts being taught. Acquiring the necessary expertise takes time and dedication for the teacher to ensure their students' comprehension. Odey and Odey (2019) raise the question of whether the high failure rates and subpar academic performance of students reflect the instructional quality in schools, given the observed decline in pedagogy, student attitudes, and values. Limited research has been conducted to understand how routine classroom experiences impact the development of learners' self-efficacy and, consequently, their effort and success in class. However, the self-efficacy theory holds promise in elucidating patterns of retention and achievement in educational settings (Fencl, 2004).

In various pedagogical studies, self-efficacy, which refers to a learner's belief in their ability to succeed in a specific task, has proven to be a reliable predictor of behaviors such as perseverance and success, as well as the choices learners make in terms of which behaviors to attempt or avoid. The study examines how classroom elements such as teaching methods and atmosphere influence students' sense of self-efficacy. Using a population of 121 undergraduates in their first semester, the study employs research design methods and survey questionnaires. The findings indicate that students in sections with different teaching methods performed significantly better on outcome variables such as self-efficacy compared to students in the traditional section. Among the individual strategies examined, the strongest associations were observed between climate factors, all sources of efficacy, and cooperative learning strategies (Fencl, 2004).

6. Methodology

The research design method used for this study was qualitative research methods. The population of the study comprises of six hundred and fifty-four (654) registered students for 2020/2021 academic session. The sample size of Two hundred and forty-eight (248) respondents was selected through the Krejcie and Morgan sampling techniques to select the sample size from the population. The returned rate of the instrument used to elicit the data from the respondents was 242(97.58%). The instrument used to collect data was questionnaire. This questionnaire was designed on a scale of 4 points Likert. The validity of the instrument was done and the reliability of the instrument was tested through the use of Cronbach Alpha reliability to determine the internal consistency of the instrument. The instrument revealed a coefficient of 0.762 which is acceptable. The method of data analysis used was analysis of variance (ANOVA) statistics to test the research questions. The statistical package for social sciences (SPSS) was used to analyse

the data.

7. Results

Table 1: Schedule of the Questionnaire Administered and Returned

SN	Number of Distributed Questionnaire	Number of Returned Questionnaire	% of Returned Questionnaire
1	248	242	97.58%

Source: Researcher Design (2023)

The table above displayed the frequency and percentage of questionnaire administered and returned.

7.1 Test of Research Questions

RQ 1: To what extent does learners' technical skill influence the blended learning?

Table 2: The ANOVA Analysis of Research Question One

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.203	4	3.551	3.570	.008
Within Groups	235.686	237	.994		
Total	249.888	241			

Table 2 shows the ANOVA analysis that was carried out to check the mean influence of the variables. The table also portrays the ANOVA results used to test the significance of the variable with an *F-statistics* of 3.570. The results displayed the *p-value* of 0.008 of the variable which is less than 0.05 thresholds. Therefore, since the *p-value* is less than 0.05 level of significance, it was inferred that learner technical skill does not influence the blended learning among the undergraduate of Wesley University Ondo. Thereby, the findings revealed that the majority of undergraduate students sampled have low technological skills to set up the blended learning which prevented them to understand the blended teaching and learning processes.

RQ 2: How does teaching flexibility enhance the usage of blended learning?

Table 3: The ANOVA Analysis of Research Question Two

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.707	3	1.236	1.609	.188
Within Groups	182.793	238	.768		
Total	186.500	241			

Table 3 displays the ANOVA result that was conceded to check the mean influence of the variables. The table also depicts the significance outcome of *F-statistics* of 1.609 with the *p-value* of 0.188 respectively. Thus, the *p-value* is greater than 0.05 level of significance which means that the significance level exists between the variables are varied. Therefore, the finding implies that the flexibility of teaching through the blended learning have higher impact to the technical understanding of the students. Though, this may not guarantee that there are no other technical factors impeding the pedagogical flexibilities in attending their virtual learning.

RQ 3: Does learner self-efficacy influence their attitude toward blended learning?

Table 4: The ANOVA Analysis of Research Question Three

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.823	4	.706	1.199	.312
Within Groups	139.491	237	.589		
Total	142.314	241			

Table 4 depicts the analysis of variance of the research question three which describes the significance outcome of the variable with the *F-statistics* of 1.199 and the fallout of the *P-value* of 0.312 respectively. This shows that the variable is positively significant. Meanwhile, the *p-value* is greater than 0.05 level of significance. Thus, learner self-efficacy has greater influence on blended learning. This implies that learner capacities can be executed through their individual beliefs. Though, some of them may lack certain skills preventing them from executing the blended learning adequately.

8. Discussion of Findings

The findings corroborated the assertions made by previous scholars such as Olugbeko and Izu (2013) and Mtebe and Raphael (2013), who stated that tertiary institutions employed blended learning methods due to limitations in internet speed. They found that using compact disk (CD) video players as an alternative learning resource proved useful. This indicates that students only have intermittent access to computers and the internet at home during their studies. As a result, some students are compelled to rely on public internet cafés, which often suffer from low bandwidth, hampering the effective implementation of e-learning in the country. Consequently, face-to-face teaching methods continue to be employed, and blended learning programs are viewed as tools for enhancing educational activities. Contrary to these findings, Nyandara (2012) argues that students encounter difficulties accessing the internet due to associated costs within and outside university learning centers. However, the findings from research question two supported the outcomes. Fencil (2004) reported that students using

various teaching methods performed significantly better than those in traditional sections, owing to the influence of self-efficacy. Despite the potential shown by the self-efficacy principle in understanding patterns of retention and achievement in educational settings, the study revealed the strongest associations when examining individual belief. Odey and Odey (2019) raised the question of whether the high failure rates and poor quality of students reflect the instructional quality in schools, given the observed decline in pedagogy, student attitudes, personal commitment, and values

9. Conclusion

The study findings indicated that the utilization of blended learning technologies has a significant impact on innovative pedagogy. Within the sample of undergraduate students of Wesley University Ondo, the majority expressed confidence in their technical skills to engage with blended learning using information technology tools, facilitating their swift program completion. Furthermore, the study revealed that the flexible teaching methods offered by blended learning did not negatively affect the students' understanding of the course materials. However, certain additional factors may impose limitations on the pedagogical flexibility of virtual learning. The effectiveness of learner self-efficacy was determined by the individual beliefs held by the learners, although some may require further skills to implement blended learning effectively. Ultimately, the commitment displayed by the learners played a crucial role in determining the effectiveness of blended learning implementation within educational institutions.

10. Recommendations

Based on the study's findings, several recommendations were made. The government should play a significant role in funding tertiary institutions, taking into account the importance of blended learning. Administrators of these institutions should actively support the adoption of blended learning approaches for both teachers and students. Creating a supportive technological environment and establishing a technical hub specifically designed for students will reduce education costs and foster academic advancement. Furthermore, educational institutions should integrate technology into their curricula to keep up with the evolving landscape. Modernizing the existing technological infrastructure is crucial to ensure that cutting-edge and competitive education is provided to the population. Additionally, it is the government's social responsibility to offer affordable education as a means to address societal issues such as insecurity. Therefore, empowering young people with a technological mindset is essential by providing them with the necessary tools and resources. This technological empowerment will enable undergraduate students to support themselves and thrive in an increasingly digital world.

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