

Innovative Pedagogical Strategies for Achieving Effective Learning in Business Education Programme in Rivers State Universities

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Abstract: *This research examines the effectiveness of innovative pedagogical strategies in enhancing learning outcomes within the Business Education programs at universities in Rivers State, Nigeria. The study aims to determine the extent to which various pedagogical strategies—specifically Zoom, portfolio development and problem-based learning,. The objectives include assessing each strategy’s impact on student engagement and learning outcomes. The research is anchored on Systems Theory, which provides a framework for understanding how these pedagogical innovations interact within the educational system and affect learning processes. A descriptive survey research design was employed to systematically collect data from a representative sample of students and lecturers using structured questionnaires. This method was chosen for its efficacy in capturing detailed and quantifiable information about current educational practices without manipulating variables. The population of the study consisted of 891 students and 30 lecturers from Rivers State University and Ignatius Ajuru University of Education. A sample of 267 respondents was selected using random sampling techniques. Data collection involved a validated and reliable questionnaire designed to measure the impact of the specified pedagogical strategies. The instrument’s validity was ensured by expert review, while its reliability was established through a test-retest method, yielding a reliability coefficient of 0.89. Data were analyzed using mean ratings, standard deviation, and Z-test statistics via SPSS software. The findings indicate no significant difference in the effectiveness of most strategies between the two universities, with a notable exception for flexibility in curriculum and problem-based learning, which showed significant variation. The study concludes that while most innovative strategies positively contribute to effective learning, certain areas, like curriculum flexibility and problem-based learning, require targeted enhancement. Recommendations include integrating Zoom, portfolio development, and mobile devices into the Business Education curriculum, while also promoting digital textbooks and YouTube as supplementary learning tools. Adjustments in curriculum flexibility and further support for problem-based learning are advised to better meet educational goals in Rivers State universities.*

Keywords: *Innovative Pedagogical Strategies, Business Education Programme, Zoom problem-based learning and Portfolio development,*

INTRODUCTION

Business Education prepares students for careers in business, equipping them with skills to handle their own business affairs and function intelligently as consumers and citizens in a business economy. Nolan, Hayden, and Malsbary (2017) defined Business Education as business programs typically offered at the secondary school level. Osuala (2014) viewed Business Education as essential for preparing youth for life. The dynamic use of

innovative teaching strategies by educators is essential today. According to Mynbayeva, Sadvakassova, and Akshalova (2018), the more innovative the teaching strategies and methods, the more engaging and motivating the learning experience becomes for students. An innovative approach to education involves developing inclusive curricula that prepare students to engage in a global culture of communication and work, regardless of their nationality, cultural background, social class, or gender identities (Ikpesu, 2008). Pedagogy is often described as the act of teaching (Li, 2012). The pedagogy adopted by teachers influences their actions, judgments, and teaching strategies by considering theories of learning, students' needs, and their backgrounds (Freire, 2018).

Innovative pedagogical strategies in universities are continuously evolving to meet the diverse needs of students and to enhance the learning experience. One such strategy is the use of **Zoom**. Zoom facilitates **virtual classrooms**, allowing students and instructors to engage in synchronous learning, regardless of their geographical locations. As highlighted by Serhan (2020), Zoom enables real-time interactions, which simulate traditional face-to-face environments but offer greater flexibility. This strategy supports active learning and collaboration, especially during discussions and group work, making it an effective tool for distance education.

Another innovative pedagogical strategy that is gaining prominence is **problem-based learning (PBL)**. PBL shifts the focus from passive learning to active problem-solving, encouraging students to engage deeply with real-world challenges. According to Savery (2015), PBL enhances critical thinking and analytical skills by presenting students with complex, open-ended problems that they must solve collaboratively. Zoom can further enhance PBL by allowing students to engage in virtual group discussions, thereby increasing accessibility and flexibility in managing group work. The integration of these tools helps students build not only problem-solving skills but also digital literacy, which is essential in today's workforce.

Portfolio development is another innovative strategy used to foster reflective learning and track student progress over time. A portfolio allows students to compile and present evidence of their learning, which encourages self-assessment and continuous improvement. As noted by Barrett (2022), digital portfolios, supported by platforms like Google Drive and Zoom for presentations, allow students to showcase their skills and knowledge in a dynamic and interactive way. This approach promotes active engagement in the learning process and helps students better articulate their academic and professional competencies.

The use of **digital tools** such as Zoom also supports **collaborative learning** in project-based environments. For instance, students working on group projects in **problem-based learning** settings can easily share resources, discuss ideas, and present solutions in virtual meetings. According to Almpanis (2021), Zoom and similar platforms foster an environment where students can collaborate beyond the classroom, helping to build essential teamwork and communication skills. In this sense, zoom acts as an enabler of collaborative, problem-based learning, making it a versatile tool in modern education.

Portfolio development as a pedagogical strategy is integral to fostering lifelong learning. By encouraging students to regularly reflect on their learning progress, portfolios support the development of critical self-assessment skills. These portfolios, especially when integrated with technology platforms like Zoom for peer and instructor feedback, create an interactive space for continuous learning. Eynon and Gambino (2020) suggest that e-portfolios enhance student agency and autonomy, allowing them to take ownership of their learning while receiving feedback that is essential for academic and professional growth.

The combination of **Zoom, problem-based learning, and portfolio development** reflects the increasing integration of technology with pedagogical innovations in universities. Each of these strategies plays a crucial role in promoting active learning, critical thinking, and collaboration, while also supporting students' ability to navigate and succeed in an increasingly digital world. As universities continue to adopt these innovative methods, students are better equipped with the skills and knowledge they need for both academic success and future career opportunities.

Statement of the Problem

In today's ever changing society, different innovative approaches to teaching are considered the key to success in education. The innovative teaching strategies, techniques, tools, methods in teaching relate to changes in procedures for achieving the desired objectives. Innovative student-centered classroom, course contents, real time learning experiences and integration of technology in teaching and learning activities have become the fundamentals of learning process. These teaching strategies encourage students to dig deep, get actively involved with the learning process when engaged with the pedagogies. Consequently, the use of innovative teaching strategies during business education classroom instruction enhances students learning and improves Business Educators instructional delivery. Business Education scenarios are changing rapidly and Educators' need to adopt proper innovation considering the changes in this era of teaching and delivery. Business education instructional delivery in tertiary institutions has not been effective perhaps due to low knowledge level and application of innovative strategies and methods in teaching of Business Education (Olson in Nwoji 2012). Business Educators are expected to adopt different types of innovation in imparting of knowledge such as digital text books, problem base learning and mobile devices innovations to promote learners interest in their studies. Therefore, this study was carried out to examine innovative pedagogical strategies for achieving effective learning in Business Education programme in Rivers State Universities. By identifying and analyzing these strategies, the study seeks to offer insights into improving instructional practices and enhancing educational outcomes in the field.

Purpose of the Study

The purpose of this study is to examine how innovative pedagogical strategies aid in achieving effective learning in Business Education programme. Specifically, the study seeks:

1. To determine the extent to which zoom as an innovative pedagogical strategy aids effective learning in Business Education programme in Rivers State Universities.

2. To determine the extent to which problem-based learning as an innovative pedagogical strategy aids effective learning in Business Education programme in Rivers State Universities.
3. To determine the extent to which portfolio development as an innovative pedagogical strategy aid effective learning of Business Education programme in Rivers State Universities.

Research questions

The following research questions guided the study

- 1 To what extent does zoom pedagogical strategy aids effective learning in Business Education programme in Rivers State Universities?
- 2 To what extent does flexibility of business education curriculum as an innovative pedagogical strategy aid effective learning of Business Education programme in Rivers State Universities?
- 3 To what extent does portfolio development as an innovative pedagogical strategy aid effective learning of Business Education programme in Rivers State Universities?

Hypotheses

1. There is no significant difference in the mean response of RSU and Ignatius Ajuru University of Education students on zoom as an innovative pedagogical strategy aid effective learning in Business Education programme in Rivers State Universities
2. There is no significant difference in the mean response of RSU and Ignatius Ajuru University of Education students on flexibility of business education curriculum as an innovative pedagogical strategy aid effective learning in Business Education programme in Rivers State Universities.
3. There is no significant difference in the mean response of RSU and Ignatius Ajuru University of Education students on portfolio development as an innovative pedagogical strategy aid effective learning in Business Education programme in Rivers State Universities

METHODOLOGY

This study adopted descriptive survey research design. The study was carried out in two universities in Rivers State; specifically Rivers State University and Ignatius Ajuru University of Education the two being state-owned universities. The population of this study consists of 891 lecturers and students of Rivers State University and Ignatius Ajuru University of Education both in Port Harcourt. The sample size of this study was 267 respondents comprising students of Business Education in Rivers State University and Ignatius Ajuru University of Education. The instruments for data collection were two sets of self-developed questionnaires titled " Innovative Pedagogical Strategies for Achieving Effective Learning in Business Education Programme in Rivers State Universities" (IPSAELBEPQ). the questionnaire was structured on a 4-point Likert rating scale of Very High Extent (VHE) = 4, High Extent (HE) = 3, Low Extent (D) = 2, and Very Low extent

(VLE) = 1, in which a respondent is required to tick (\surd) his/her choice in the space provided for response to the statements in the questionnaire. To validate the instrument, the researcher adopted the face and content validity method. In order to establish the reliability of the instrument, the instrument was administered to twenty (20) students from the University of Port Harcourt who were not part of the population. Their responses were analyzed using Pearson's Product Moment Correlation statistical tool was employed to correlate the sets of scores and a reliability score of 0.89 was achieved. Data collected for this study were analyzed using mean and standard deviation was used to answer the research questions. The hypothesis was tested using z-test.

Result

Table 1: Analysis of data on usage of zoom as an innovative pedagogical strategy aid in achieving of effective learning of Business Education programme in Rivers State Universities

S/No	ITEMS	RSU Student (N ₁ = 102)			IAUE Student (N ₂ = 165)		
		Mean	Std. Deviation	RMK	Mean	Std. Deviation	RMK
1	Zoom is a cloud based service which provides content sharing and video conferencing capability between Educators and students	4.42	1.29	High	4.35	1.32	High
2	Zoom's features allow Business Educators to explore and assess skills through rich interactions with students	3.67	1.46	High	4.20	1.37	High
3	Zoom motivates Business Educators to annotate their shared screen, making lessons more interactive.	4.25	1.34	High	3.63	1.76	High
4	Business Educators can record their lessons and send to the Cloud locally for students to view	4.17	1.24	High	4.39	1.23	High
5	Zoom's screen sharing can give Business Educators a great opportunity to develop students' intercultural skills by sharing engaging materials.	3.83	1.39	High	4.28	1.22	High
		20.34	6.72		20.85	6.90	
		4.07	1.34		4.17	1.38	

Source: Field Data, 2023

Table 1 revealed that zoom as a pedagogical innovative strategy aid achieving effective learning of Business Education programme with grand mean of 4.07 and 4.17 respectively. The first item on Zoom is a cloud based service which provides content sharing and video conferencing capability between Educators and students have a mean score of 4.42 and 4.35, second item on Zoom's features allow Business Educators to explore and assess skills through rich interactions with students have a mean score of 3.67 and 4.20 respectively, third item on Zoom motivates Business Educators to annotate their shared screen, making lessons more interactive have a mean score of 4.25 and 3.63 respectively, fourth ADSF-item on Business Educators can record their lessons and send to the Cloud locally for students to view on mean score 4.17 and 4.39 respectively, fifth item on Zoom's screen sharing can give Business Educators a great opportunity to

develop students' intercultural skills by sharing engaging materials have mean score of 3.83 and 4.28 respectively. This implies that usage of zoom as an innovative pedagogical strategy aid in achieving of effective learning of Business Education programme in Rivers State Universities

Table 2: Analysis of data on usage of flexibility of business education curriculum as an innovative pedagogical strategy aid in achieving of effective learning of Business Education programme in Rivers State Universities

S/NO	ITEMS-	RSU Student (N ₁ = 102)			IAUE Student (N ₂ = 165)		
		Mean	Std. Deviation	RMK	Mean	Std. Deviation	RMK
6	Curriculum flexibility helps Business Educators to adopt a range of learning strategies in a variety of learning environments to cater for differences in learning styles, learning interests and needs, and variations in learning opportunities	4.25	1.20	High	4.15	1.23	High
7	Curriculum flexibility drive educational philosophies and systems, that provide learners with increased choice, convenience, and personalization to suit their learning.	4.25	1.15	High	4.24	1.31	High
8	Curriculum flexibility helps teachers to develop and control educational decision making that are expected to boost teaching and learning	3.75	1.75	High	3.73	1.54	High
9	Curriculum flexibility helps teachers to organize students and carry out instructional plans	4.33	1.22	High	4.19	1.09	High
10	Curriculum flexibility helps teachers to know how knowledge is produced and revised in the field of education	3.67	1.89	High	4.22	1.10	High
		20.25	7.21		20.53	6.27	
		4.05	1.44		4.11	1.25	

Source: Field Data, 2023

Table 2 on flexibility of business education curriculum aid achieving effective learning in Business Education programme in Rivers State Universities. The first item on curriculum flexibility helps Business Educators to adopt a range of learning strategies in a variety of learning environments to cater for differences in learning styles, learning interests and needs, and variations in learning opportunities have a mean score of 4.25 and 4.15, second item on Curriculum flexibility drive educational philosophies and systems, that provide learners with increased choice, convenience, and personalization to suit their learning have a mean score of 4.25 and 4.24 respectively, third item on Curriculum flexibility helps teachers to develop and control educational decision making that are expected to boost teaching and learning have a mean score of 3.75 and 3.73 respectively, fourth item on Curriculum flexibility helps teachers to organize students and carry out instructional plans have mean score 4.33 and 4.19 respectively, fifth item on Curriculum flexibility helps teachers to organize students and carry out instructional plans have mean

score of 3.67 and 4.22 respectively. This implies that usage of flexibility of business education curriculum as an innovative pedagogical strategy aid in achieving of effective learning of Business Education programme in Rivers State Universities

Research Question 3: To what extent does the usage of portfolio development as an innovative pedagogical strategy aid in achieving of effective learning of Business Education programme in Rivers State Universities?

Table 3: Analysis of data on usage of portfolio development as an innovative pedagogical strategy aid in achieving of effective learning of Business Education programme in Rivers State Universities

S/NO	ITEMS	RSU Student (N ₁ = 102)			IAUE Student (N ₂ = 165)		
		Mean	Std. Deviation	RMK	Mean	Std. Deviation	RMK
11	Portfolio development gives students the ability to construct meaning using the learning style that suits them best	4.30	1.32	High	4.26	1.22	Very High
12	Portfolio development provide opportunities for students to become active learners as they set goals for learning, engage in self - reflections, review goals, and assume responsibility for their own learning	4.0	1.21	High	4.05	1.26	High
13	Portfolio development helps the students to get feedback from their classmates as well as give feedback to them.	3.67	1.46	High	4.00	1.25	High
14	Portfolio development pays attention not only to the achievement of students but also to the process involved in the development of students.	4.25	1.38	High	4.46	1.13	Very High
15	Portfolio development helps in the assessment of students learning progress in terms of knowledge acquired	4.0	1.29	High	4.41	1.09	Very High
		20.22	6.66		21.18	5.95	
		4.04	1.33		4.24	1.19	

Source: Field Data, 2023

Table 3 on portfolio development as a pedagogical innovative strategy aid achieving effective learning in Business Education programme in Rivers State Universities. The first item on Portfolio development gives students the ability to construct meaning using the learning style that suits them best have a mean score of 4.30 and 4.26, second item on Portfolio development provide opportunities for students to become active learners as they set goals for learning, engage in self -reflections, review goals, and assume responsibility for their own learning have a mean score of 4.0 and 4.05 respectively, third item on Portfolio development helps the students to get feedback from their classmates as well as give feedback to them have a mean score of 3.67 and 4.00 respectively, fourth item on Portfolio development pays attention not only to the achievement of students but also to the process involved in the development of students have mean score 4.25 and 4.46 respectively, fifth item on Portfolio development helps in the assessment of students learning progress in terms of knowledge acquired have mean score of 4.0 and 4.41 respectively. This implies that usage of portfolio development as an innovative

pedagogical strategy aid in achieving of effective learning of Business Education programme in Rivers State Universities

Test of Hypotheses

H0₁: There is no significant difference in the mean response of RSU and IAUE students on zoom as a pedagogical innovative strategy and achieving effective learning of Business Education programme in Rivers State Universities

Table 4: Z-test significant difference in the mean responses of RSU and IAUE students on zoom as a pedagogical innovative strategy and achieving effective learning of Business Education Programme

Respondents	N	\bar{x}	SD	df	z-cal	z-crit	α	Decisions
RSU Student	102	4.07	1.34	265	0.72	1.64	0.05	Accepted
IAUE Students	165	4.17	1.38					

Table 4. indicated the significant difference in the mean responses of RSU and IAUE students on zoom as a pedagogical innovative strategy in achieving effective learning of Business Education programme in Rivers State Universities. This is shown by z-calculated value of 0.72 which is less than z-table of 1.64 for degree of freedom (265) at 0.05 level of significance. Hence the null hypothesis was accepted and the alternate hypothesis accepted.

H0₂: There is no significant difference in the mean response of RSU and IAUE students on flexibility of business education curriculum as a pedagogical innovative strategy and achieving effective learning of Business Education programme in Rivers State Universities

Table 5: Z-test significant difference in the mean responses of RSU and IAUE students on flexibility of business education curriculum and achieving effective learning of Business Education programme in Rivers State Universities

Respondents	N	\bar{x}	SD	df	z-cal	z-crit	α	Decisions
RSU Student	102	4.05	1.44	265	0.95	1.64	0.05	Accepted
IAUE Students	165	4.11	1.25					

Table 5 indicated the significant difference in the mean responses of RSU and IAUE students on flexibility of business education curriculum and achieving effective learning of Business Education programme in Rivers State Universities. This is shown by z-calculated value of 0.95 which is less than z-table of 1.64 for degree of freedom (278) at 0.05 level of significance. Hence the null hypothesis was rejected and the alternate hypothesis accepted.

H0₃: There is no significant difference in the mean response of RSU and IAUE students on portfolio development as a pedagogical innovative strategy and achieving effective learning of Business Education programme in Rivers State Universities

Table 6: Z-test significant difference in the mean response of RSU and IAUE students on portfolio development as a pedagogical innovative strategy and

achieving effective learning of Business Education programme in Rivers State Universities

Respondents	N	\bar{x}	SD	Df	z-cal	z-crit	α	Decisions
RSU Student	102	4.04	1.33	265	0.72	1.644	0.05	Accepted
IAUE Students	165	4.24	1.19					

Table 6 indicated the significant difference in the mean response of RSU and IAUE students on portfolio development as a pedagogical innovative strategy and achieving effective learning of Business Education programme in Rivers State Universities . This is shown by z- calculated value of 0.72 which is less than z-table of 1.64 for degree of freedom (265) at 0.05 level of significance. Hence the null hypothesis was rejected and the alternate hypothesis accepted.

Discussion of Findings

Findings on the first research question on zoom as a pedagogical innovative strategy aid achievement of effective learning in Business Education programme, revealed that zoom as a pedagogical innovative strategy relate with achieving effective leaning of Business Education programme this was inline with Oye et al, (2012), opined that it is generally believed that with the advent of Information and Communications Technology (ICT), zoom technology is among the catalysts that will drive learning. Hence, zoom technology should become an integral part of learning in tertiary institutions. Another rationale for zoom technology could be seen in the fact that the world of the twenty-first century can aptly be called an e-driven world (Oye et al 2012). Virtual technologies have brought profound changes to all facets of life. In order to equip students with the necessary skills and knowledge to foster the growth of independent, creative and lifelong learners, schools should use zoom technology to provide relevant experiences to support and facilitate the students' development. Studies have generally indicated that the use of traditional didactic lectures alone cannot make students to be globally literate and succeed in this information age

Findings on the second research question on flexibility of business education curriculum aid achievement of effective learning of Business Education programme revealed that there is a relationship between flexibility of business education curriculum and achieving effective learning of Business Education programme this was also in line with Shurville et al. (2008) "Flexible Learning is a set of educational philosophies and systems, concerned with providing learners with increased choice, convenience, and personalisation to suit the learner. In particular, flexible learning provides learners with choices about where, when, and how learning occurs". Flexible learning approaches are often designed using a full range of teaching and learning theories, philosophies and methods to provide students with opportunities to access information and expertise, contribute ideas and opinions, and correspond with other learners and mentors. This may occur through the use of internet-based tools such as Virtual Learning Environments or Learning Management Systems, discussion boards or chat rooms; and may be designed as a "blended" approach, with content available electronically and remotely, as well as "face-to-face" classroom tutorials and lectures. Flexible learning is learner-centred, encouraging greater independence and autonomy on the part of the learner. Its ethos is

to enable and empower learners and give them greater control of their learning and become more self-directed. It increases choices available to both learners and teachers resulting in a 'blurring of traditional internal/external boundaries'

Findings on the third research question on portfolio development as a pedagogical innovative strategy aid achievement of effective learning in Business Education programme in Rivers State Universities, revealed that there is a relationship between portfolio development as a pedagogical innovative strategy and achieving effective learning of Business Education programme this was inline with Zubizarreta, 2009) viewed that portfolios have advantages related to students, teachers as well as other stakeholders. As for students, portfolios have a positive impact on students' cognitive, affective and social aspects. Concerning the cognitive aspect of students, portfolios help students develop awareness of their own learning (Kemp & Toperoff, 1998) by increasing their understanding of what, why, and how they learned (Brown, cited in Barrett, 2004), provide students with the opportunity of understanding their own thoughts about certain issues (Partridge, 1993), and help connect those thoughts to real-world understandings (Adams & Hamm, 1994) which helps them to become independent thinkers (Hancock, 1994). Concerning the affective side of the students, portfolios promote a feeling of security because a healthier, non -threatening learning environment is created (Lafi, 2002). The portfolio gives students a sense of accomplishment, self-confidence, responsibility, involvement, ownership, pride, high self-esteem as well as motivation for learning (Kemp & Toperoff, 1998).

Conclusion

Based on the findings of this study, it can be concluded that there is no significant difference in the mean response of students of RSU and IAUE on zoom as a pedagogical innovative strategy aid achievement of effective learning in Business Education programme in Rivers State Universities. There is a significant difference in the mean response of students of RSU and IAUE on flexibility of business education curriculum as a pedagogical innovative strategy aid achievement of effective learning in Business Education programme in Rivers State Universities. There is no significant difference in the mean response of students of RSU and IAUE on portfolio development as a pedagogical innovative strategy aid achievement of effective learning in Business Education programme in Rivers State Universities. There is a significant difference in the mean response of students of RSU and IAUE on problem-based learning as a pedagogical innovative strategy aid achievement of effective learning in Business Education programme in Rivers State Universities.

Recommendations

The following recommendations were proffered based on the findings of this study.

1. Zoom as a pedagogical innovative strategy should be incorporated in Business Education programme to enhance effective learning of Business Education programme in Rivers State Universities.
2. Business Education Curriculum should be flexibility to enable the planners make amendment of new innovation to enhance effective learning of Business Education programme in Rivers State Universities.

3. Portfolio development should be incorporated in Business Education programme to enhance effective learning of Business Education programme in Rivers State Universities.

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