

CONSTRAINTS OF VIRTUAL CLASSROOM MANAGEMENT IN EFFECTIVE INSTRUCTIONAL DELIVERY OF BUSINESS EDUCATION COURSES IN RIVERS STATE UNIVERSITIES

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ABSTRACT

The study examined the constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State Universities. The study adopted the descriptive survey research design. Two research questions and two hypotheses guided the study. The population of the study comprised of all 54 Lecturers of Business Education of Rivers State University and Ignatius Ajuru University of Education all located in Rivers State. The entire population was used for the study. A structured questionnaire titled "Questionnaire on Constraints of Virtual Classroom Management in Effective Instructional Delivery" (QCVCMEID) was used as instrument for data collection. Three experts validated the instrument while PPMCC was used to obtain the reliability coefficient of 0.89. 54 copies of the questionnaire were distributed, retrieved and used for the study. The items were rated on a four (4) point rating scale; mean was used to analyse the research questions and t-test was used in testing the hypotheses. The findings revealed that internal constraints such as students' lack of concentration, financial conditions, lack of interest amongst students, inability to enforce sanctions, absence to physical contact, inadequate practice by students and external constraints such as lack of Information and Communication Technology accessories, poor network, unstable power supply, obsolete hardware/software applications, absence of extant regulations and noisy environment are constraints of virtual classroom management that hinders effective instructional delivery of Business Education courses in Rivers State universities. The researchers recommended provision and activation of rules to guide the instructional delivery process online and ensure the provision of Information and Communication Technology facilities as this will help in virtual classroom management in effective instructional delivery of business Education courses.

Keywords: Virtual Classroom, Management, Instructional Delivery, Business Education.

INTRODUCTION

The increasing use of Information and Communication Technologies has led to the phenomenal growth and use of computer devices and accessories in higher education over the past decade. The incorporation of technology into the delivery of academic coursework may include two distinct modalities, namely the fully online modality and the traditional face-to-face modality. The academic world continuously incorporates the advantages of modern technologies such as the internet, portable computing devices, and dynamic media into the educational arena.

The internet has evolved into a global and commercial communication infrastructure with supporting applications for use at work, school, and home and in between.

The advent of the virtual classroom has made it possible for learners to explore the facilities of the internet to create meaningful and constructive learning environments. Consequently, physical classroom features have been transformed into a virtual classroom with enhanced features. Virtual classroom is an online learning environment that contains all required course materials; it is a learning system that provides the same opportunities for teaching and learning process beyond the physical limits of the physical classroom walls and is usually web-based (Rufai, Alebiosu & Adeakin, 2015). According to Nicholas, Ambrose, Uyiosaifo and Michael (2015), a virtual classroom is an environment conducive for learning, which takes place in the cyberspace. It provides the tools that learners need and brings together educators and learners to share information and ideas. The virtual classroom is a special form of e-learning that finds relevant applications in enriching the conventional learning methods and this is achievable deploying a wide range of technologies and media.

Virtual classrooms are technological-driven classrooms that support self-directed and self-regulated learning and could be seen as that classrooms, capable of replacing partially or totally the conventional educational, evaluative and administrative functioning of a regular classroom by adopting the advanced computer and Information and Communication Technologies like the internet, e-mail, on-line chatting, www, CD-ROMS, DVDs, teleconferencing and video conferencing (Anekwe, 2017). Virtual classroom isn't only something for distance learners, but also for blended learning, or even as a supplement of on-campus courses. In contemporary virtual classroom environments, there is a variety of features available that could be exploited not only to emulate a traditional classroom, but also to move beyond the traditional classroom Limitations (Xenos, 2018). Virtual classroom is a set of teaching and learning tools which intends to improve learning experience of students with the help of various technological devices; Virtual classroom is an online learning environment that contains all course materials (Rajab & Soma, 2020). Thus, virtual classroom can be viewed as a computer mediated learning process which is most often referred as online learning/e-learning. Today, the most commonly used Virtual Classroom platforms in our institutions include; zoom, google classroom, whatsapp etcetera.

Despite the enormous benefits associated to the use of Virtual classrooms, authors have reported several constraints in its implementation. Ohiwerei, Azih and Okoli (2013) in a study titled problems militating against the utilization of Information and Communication Technology in teaching Business Education in Nigeria universities highlighted the problems to include, lack of computers, lack of qualified teachers to teach Information and Communication Technology in schools, lack of provision of electricity in schools, fear of indispensable, lack of internet connectivity and obsolete computers etc. Accordingly, Rajab and Soma (2020) asserted that the challenges in virtual learning may be internal/subjective and external/objective from the perspective of the teacher. Internal challenges such as the lack of interest to learn and adapt to new learning situations, unwillingness to apply Information and Communication Technologies in classroom, age old belief into the effectiveness of chalk and talk method of teaching, time consuming with respect to preparation of lecture materials, fear of students looking into inappropriate sites, lack of interest and motivation among the students to learn, inability to motivate the students to use virtual learning mode, absence of face-to-face contact, grasp over language often acts as a barrier as virtual classrooms, lack of interest and motivation among the students to learn, financial conditions, inadequate practice. The external challenges include; lack of interest of authority in preparing/ providing the appropriate infrastructure, lack of awareness of the benefits of virtual learning, and lack of coordination between the educational institutions and the community. In the contest of this study, internal constraints are factors within the control of the educator and external controls are factors outside the control of the educator. The virtual classroom like the traditional learning environment requires effective management to achieve the desired result of instructional delivery.

Classroom management is the act of supervising relationships, behaviors, and instructional settings and lessons for communities of learners; classroom management is a preventive activity which will reduce indiscipline (Iverson 2003 as cited in Rufai et al., 2015, p. 29). Classroom management is an extensive and essential component that expresses how a teacher manages the learning activities, the pupils' behaviour and other social rapport in the classroom (Adedigba & Sulaiman, 2020). Classroom Management involves actions and strategies that instructors use to maintain order/decorum in a classroom. In the other hand Virtual Classroom Management involves all preventive measures put in place to achieve order in online classrooms; better put, for effective instructional delivery in a computer mediated learning environment.

Instructional delivery is a process of facilitating learning which is expected to bring about change in behaviour of the learner and this process is only achievable by the provision of certain instructional facilities. Accordingly, Ubulom (2006) emphasized that optimum teaching and learning delivery in business education is only achievable by adequate and efficient provision of requisite instructional facilities and that where the requisite teaching and learning tools are non-existence or inadequate, effective instructional delivery may not take place. Comfortable classrooms and adequate provision of instructional resources facilitate teachers' instructional task performance and students' learning outcomes (Ayeni & Adelabu, 2012). Ayeni & Adelabu stressed further that the quality of learning facilities available within an educational institution has positive relationship with the quality of teaching and learning activities which in turn leads to the attainment of goals set. This is where technology comes in but not without its own challenges, necessitating the application of several strategies that will help limit indiscipline and promote better management of the virtual classroom as desired by every educational setting, even the Business Education programme.

Business Education is an educational programme in institution of learning which offers individuals opportunity for gainful employment through the acquisition of skills and knowledge that affects the business world (Amaewhule & Appah, 2019). Business Education is a vocational programme with the aim of equipping students so that at the end they could acquire knowledge and skills that could enable them to be self-reliant (Amesi & Allison, 2020). Thus, Business Education is a programme of study that instils in learners, aptitudes needed for successful participation in business or performance in the world of work Today, the Business Education programme like every education programmes is making effort to adopt technology for instructional delivery. The outbreak of the Corona Virus (COVID 19) pandemic and the institution of several preventive measures as lockdown and social distancing has greatly necessitated the use of technology for instructional delivery which is also not limited to certain constraints that remains a threat to its complete adoption or integration.

Statement of the Problem

The introduction of Information and Communication Technologies in classroom instructions in Nigerian universities and in the Business Education programme in particular means more than teaching basic computer skills and software programs. The integration and application of technology cut across the curriculum in ways that deepen and enhance effective instructional delivery. Virtual classrooms are becoming the order of the day in the face of several restrictions that have hindered the smooth running of traditional/physical learning as a result of the outbreak of pandemics and other life threatening societal challenges. Virtual classrooms change the way lecturers teach, students learn, students understand and lecturers/students relationship. Like the traditional classrooms, teachers need to ensure proper management for effective instructional delivery even in Virtual Classrooms. Unfortunately, the application of modern technologies in Business Education has suffered some setbacks (Okoro, 2020) and observation shows that there have been a lot of outcries on managing virtual classrooms in the delivery of Business Education courses. What then are the constraints of virtual classroom management in effective instructional delivery of Business education courses in Rivers State universities?

Purpose of the Study

The purpose of this study was to investigate the constraints of virtual classroom management and effective instructional delivery of Business Education courses in Rivers State universities. Specifically, the study sought to;

1. Ascertain the internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.
2. Ascertain the external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.

Research Questions

The following research questions were answered:

1. What are the internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities?
2. What are the external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities?

Hypotheses

The following null hypotheses were tested:

1. There is no significant difference in the mean responses of Business Education lecturers of Rivers State University and Ignatius Ajuru University of Education on the internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.
2. There is no significant difference in the mean responses of Business Education lecturers of Rivers State University and Ignatius Ajuru University of Education on the external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.

Methodology

The descriptive survey research design was used in conducting the study. The population for the study as indicated in the table below comprised of all 54 Business Education Lecturers of Rivers State University and Ignatius Ajuru University of Education.

Table 1: Population Distribution

S/N	INSTITUTIONS	TOTAL NO. OF BUSINESS EDUCATION LECTURERS
1.	Rivers State University (RSU)	18
2.	Ignatius Ajuru University of Education (IAUE)	36
G/TOTAL		54

Source: Head of Departments, 2024.

No sampling study, technique was used for the study, since the population was small. The instrument used for data collection was a structured questionnaire titled "Questionnaire on Constraints of Virtual Classroom Management in Effective Instructional Delivery" (QCVCMEID). The instrument provided response to the two research questions with 15 items; Item 1-8 addressing Research Question One and item 9-15 addressing Research Question Two in a 4-point rating scale weighted as "Strongly Agree" (SA) – 4 points, "Agree" (A) – 3 points, "Disagree" (D) – 2 points and "Strongly Disagree" (SD) – 1 point. To establish the validity of the instrument, the questionnaire was subjected to face and content validity by two experts from the Department of Business Education and one expert from Measurement and Evaluation, all in the Faculty of Education in Rivers State University.

To ensure the consistency of the instrument, the test- retest method of reliability was adopted and Pearson Product Moment Correlation Coefficient (PPMCC) was used to establish the reliability coefficient of .89. 54 copies of the questionnaire were retrieved and used for the study; this represents 100 per cent of the total number distributed. The data analysis was done using the mean to analyze the research questions while t-test was used to test the hypotheses. The mean was obtained by the summation of all responses as assigned to a rating scale in an item divided by the total number of responses: $4+3+2+1/4 = 2.50$. The mean score of 2.50 and above indicate agreement, while those below 2.50 indicate disagreement. Also, the decision rules for the hypotheses was that any hypothesis which t-calculated value is less than the t-critical table value of 1.96 is considered accepted whereas if it is more than the critical table value is considered rejected.

Results

Research Question 1

What are the internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities?

Table 2: Mean Ratings on internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities. N=54

S/N	Statements	Business Education Lecturers						RSU/IAUE Lecturers		Remarks
		RSU (18)			IAUE (36)			\bar{X}	STD	
		\bar{X}	STD	RMKS	\bar{X}	STD	RMKS			
1.	Students' lack of concentration hinders virtual lecture delivery.	3.03	0.99	A	2.95	0.99	A	2.99	0.99	A
2.	Lecturers' lack of interest affects instructional delivery virtually.	1.47	0.72	SD	1.46	0.59	SD	1.47	0.66	SD
3.	Financial conditions are a major concern for virtual learners.	3.13	0.89	A	2.90	1.03	A	3.01	0.96	A
4.	Over reliance on talk and chalk method affects virtual lecture delivery.	1.82	1.05	D	1.80	0.89	LE	1.81	0.97	D
5.	Lack of interest amongst students hinders lecture delivery.	3.08	0.98	A	3.05	0.96	A	3.06	0.95	A
6.	Inability to enforce sanctions during lecture delivery.	3.34	0.62	A	3.30	0.51	A	3.32	0.57	A
7.	Absence to physical contact causes disturbance during lectures.	3.54	0.90	SA	3.51	0.96	SA	3.52	0.93	SA
8.	Inadequate practice by students hinders instructional delivery.	3.47	0.72	A	3.46	0.59	A	3.47	0.66	A
Total Mean/SD		22.88	6.87		22.43	6.52		22.65	6.69	
Grand Mean/SD		2.86	0.86	A	2.80	0.82	A	2.83	0.84	A

Source: Survey Result, 2024.

The data presented in Table 2 shows that the responses of the respondents for items 1, 3, 5, 6, 7 and 8 had an average mean scores of 2.99, 3.01, 3.06, 3.32, 3.52 and 3.47 respectively; this implies that the respondents agree that students' lack of concentration, financial conditions, lack of interest amongst students, inability to enforce sanctions, absence to physical contact and inadequate practice by students hinders instructional delivery but disagrees that lecturers' lack of interest and over reliance on talk and chalk method affects virtual lecture delivery. However, the table also revealed a grand mean of 2.83 which indicates that the factors mentioned above are internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities. The standard deviation values ranges from 0.66 to 0.99 with a grand standard deviation of 0.84, indicating a close response from the respondents on all items.

Research Question 2

What are the external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities?

Table 3: Mean Ratings on external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities. N=54

S/N	Statements	Business Education Lecturers						RSU/IAUE Lecturers		Remarks
		RSU (18)			IAUE (36)			\bar{X}	STD	
		\bar{X}	STD	RMKS	\bar{X}	STD	RMKS			
9.	Lack of ICT accessories hinders virtual lectures.	3.55	0.68	SA	3.54	0.77	SA	3.54	0.72	SA
10.	Poor network hinders instructional delivery.	3.61	0.67	SA	3.36	0.76	SA	3.48	0.71	A
11.	Unstable power supply affects virtual lectures.	3.50	0.88	SA	3.46	0.80	A	3.48	0.84	A
12.	Obsolete hardware/software applications affect virtual lectures.	3.52	0.85	SA	3.51	0.67	SA	3.51	0.76	SA
13.	Course outline hinders virtual instructional delivery.	1.13	0.52	SD	1.12	0.50	SD	1.12	0.51	SD
14.	Absence of extant regulations guiding virtual lectures.	3.30	0.66	A	3.27	0.59	A	3.29	0.63	A
15.	Noisy environment hinders virtual lectures	3.53	0.54	SA	3.51	0.50	SA	3.52	0.52	SA
Total Mean/SD		22.14	4.80		21.77	4.59		21.96	4.69	
Grand Mean/SD		3.16	0.69	A	3.11	0.66	A	3.14	0.68	A

Source: Survey Result, 2024.

The data presented in Table 3 shows that the responses of the respondents for items 9, 10, 11, 12, 14 and 15 had an average mean scores of 3.54, 3.48, 3.48, 3.51, 3.29 and 3.52 respectively; this implies that the respondents agree that lack of ICT accessories, poor network, unstable power supply, obsolete hardware/software applications, absence of extant regulations and noisy environment hinders instructional delivery but disagrees that course outline hinders virtual instructional delivery. However, the table also revealed a grand mean of 3.14 which indicates that the factors mentioned above are external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities. The standard deviation values ranges from 0.51 to 0.84 with a grand standard deviation of 0.68, indicating a close response from the respondents on all items.

Hypothesis 1

There is no significant difference in the mean responses of Business Education lecturers of Rivers State University and Ignatius Ajuru University of Education on the internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.

Table 4: t-test result on internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.

Respondents	N	Mean	Std. Dev.	df	t- Cal Value	t- Crit Value	L/Sig	Decision
RSU	18	2.86	0.86	52	0.36	1.96	0.05	Accepted
IAUE	36	2.80	0.82					

Source: Survey Result, 2024.

Table 4 above revealed a t-calculated value of 0.36 which is less than the t-critical value of 1.96. Thus, the null hypothesis was accepted. This means that Business Education lecturers in Rivers State University and Ignatius Ajuru University of Education do not differ significantly on the internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.

Hypothesis 2

There is no significant difference in the mean responses of Business Education lecturers of Rivers State University and Ignatius Ajuru University of Education on the external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.

Table 5: t-test result on external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.

Respondents	N	Mean	Std. Dev.	df	t- Cal Value	t- Crit Value	L/Sig	Decision
RSU	18	3.16	0.69					
				52	0.41	1.96	0.05	Accepted
IAUE	36	3.11	0.66					

Source: Survey Result, 2024.

Table 5 above revealed a t-calculated value of 0.41 which is less than the t-critical value of 1.96. Thus, the null hypothesis was accepted. This means that Business Education lecturers in Rivers State University and Ignatius Ajuru University of Education do not differ significantly on the external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities.

Discussion of Findings

The findings on research question 1 with respect to internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities indicated that the respondents disagree that lecturers' lack of interest and over reliance on talk and chalk method affects virtual lecture delivery but agreed that students' lack of concentration, financial conditions, lack of interest amongst students, inability to enforce sanctions, absence to physical contact and inadequate practice by students hinders effective instructional delivery of Business Education courses in Rivers State universities. This finding is in agreement with Rajab and Soma (2020) who asserted that the challenges in virtual learning include lack of interest, age old belief into the effectiveness of chalk and talk method of teaching, lack of interest and motivation among the students to learn, inability to motivate the students to use virtual learning mode, absence of face-to-face contact, financial conditions and inadequate practice. These are all major constraints that hinder effective management of the instructional process in virtual classrooms.

The findings on research question 2 with respect to external constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities indicated that the respondents disagree that course outline hinders virtual instructional delivery but agreed that lack of ICT accessories, poor network, unstable power supply, obsolete hardware/software applications, absence of extant regulations and noisy environment hinders instructional delivery of Business Education courses in Rivers State universities. This finding aligns with Ohiwerei, et al., (2013) who in their study revealed that the problems that hinders the use of ICT in teaching Business Education courses includes lack of computers, lack of provision of electricity in schools, lack of internet connectivity and obsolete computers etc. The finding also agrees with Rajab and Soma (2020) who revealed the lack of interest of authority in preparing/providing the appropriate infrastructure is a setback to virtual classroom management. *The absence/lack of all these are a major constraint and go a long way to hinder virtual classroom management in effective instructional delivery.*

Conclusion

Based on the results and findings of this research work, the researcher noted that students' lack of concentration, financial conditions, lack of interest amongst students, inability to enforce sanctions, absence to physical contact and inadequate practice by students are internal constraints of virtual classroom management in effective instructional delivery of Business Education courses in Rivers State universities and that lack of Information and Communication Technology accessories, poor network, unstable power supply, obsolete hardware/software applications, absence of extant regulations and noisy environment are external constraints of virtual classroom management that hinders effective instructional delivery of Business Education courses in Rivers State universities. These constraints if not well tackled will hinder the effective instructional delivery of Business Education courses which will in turn affect the products of the Business Education programmes.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Lecturers should put in place rules to guide the instructional delivery process and ensure they use the right strategy to gain students attention and building student's interest as this will help in virtual classroom management in effective instructional delivery of business Education courses.
2. Relevant authorities should ensure the necessary provision of all computer accessories and infrastructures as this will help improve virtual classroom management in effective instructional delivery of business Education courses.

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