

Challenges of Virtual Classroom Management in Quality Instructional Delivery of Educational Management Courses in Rivers State Owned Universities in the 21st Century

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Abstract

The study investigated the challenges of virtual classroom management in quality instructional delivery of educational management courses in Rivers State owned Universities in the 21st century. The study adopted the descriptive survey research design. Two objectives, two research questions and two hypotheses guided the study. The population of the study consisted of all 65 lecturers of the Department of Educational Management of Rivers State University and Ignatius Ajuru University of Education in Rivers State. The entire population was taken as census as no sampling technique was used for the study. A structured questionnaire titled “Challenges of Virtual Classroom Management in Quality Instructional Delivery Questionnaire” was used as instrument for data collection. Three experts validated the instrument and Cronbach Alpha Method was used to obtain an average reliability coefficient of 0.86. 65 copies of the questionnaire were administered to the respondents, retrieved, and used for the study. The items were rated on a four (4) point rating scale; mean was used to answer the research questions while z-test was used in testing the formulated null hypotheses. The findings reviewed that internal challenges such as lack of interest by students, inadequate knowledge of computer operation, financial challenge, inadequate training of teachers and lack of concentration by students and external challenges such as erratic power supply, unstable internet services, limited computer facilities, lack of central databases and high cost of data are challenges of virtual classroom management that militates against quality instructional delivery of Educational Management courses in Rivers State owned Universities in the 21st century. The researchers recommended that Rivers State Government should provide ICT tools for state universities and massively embark on training and retraining of lecturers and students on usage of the tools for hitch-free virtual instructional delivery of Educational Management courses and that the government of Rivers State in collaboration with the schools' management should provide free internet services to the state universities to help improve virtual classroom management in quality instructional delivery of Educational Management courses.

Background to the Study

The use of technology is increasingly penetrating the education domain and is gradually being used to deliver education, knowledge, and skills in new and innovative ways. The increased use of fast changing technologies and its incorporation in every workplace, sector, and delivery of instructions in the classroom had given credence to two diverse modes of learning namely the virtual learning or online learning and the traditional face-to-face. The virtual learning or online learning mode is delivered through social platforms such as zoom, WhatsApp, google classroom, skype.com, gotomeeting.com, youtube.com, blackboard.com, udemy.com, futurelearn.com and so on. The virtual learning takes a place in a virtual classroom. In corroboration Elenwo and Nnadijeze (2023) stated that online learning requires the use of computers, smart phones, laptops, data and so on to log into the Zoom App which is a platform used for teaching and learning. Virtual classroom according to Gupta and Gupta (2014) is a teaching and learning environment located within a computer-mediated communication. Just like in a real-world classroom, a student in a virtual classroom participates in synchronous instruction, which means that the teacher and students are logged into the virtual learning environment at the same time. Virtual classroom has been described by Schutt & Linger (2013) as a web-based environment that allows an individual to participate in live training events without traveling to any other place. In a virtual classroom a learner can sit in the comfort of his/her environment and listen to teachers, participate in the laboratory exercises, ask questions, and effectively interact with the teacher as if the action is taking place in a conventional classroom but it is done with the convenience of technological gadgets as desktop that have internet and phone connection. The internet on the other hand provides such advantages and new ways of communicating, interacting, and assessing information for both teachers and students.

In another words, virtual classroom could be seen as the classrooms, capable of replacing partially or totally the conventional educational, evaluative, and administrative functioning of a regular classroom by adopting the advanced computer and ICT technologies like the internet, e-mail, on-line chatting, www, CD-ROMS, DVDs, teleconferencing and video conferencing (Mangal and Mangal, 2009). In a virtual classroom, students may be in a different location from their teacher, or from other students in their class. Also, teachers and students in virtual classrooms may be using a range of ICTs to facilitate learning, communication and collaboration in ways that may not be typical in a conventional classroom. Xenos (2018) asserted that virtual classroom is not only something for distance learners, but also for blended learning, or even as a supplement of on-campus courses with an environment that could be exploited not only to emulate a traditional classroom, but also to move beyond the traditional classroom limitations.

In spite of the enormous benefits linked to the usage of virtual classroom Ohiwerei, Azih and Okoli (2013) opined that virtual classrooms are faced with challenges such as lack of teachers to teach Information Technology Communication (ICT) in schools, lack of computers, lack of provision of electricity, lack of internet connectivity, obsolete computer and so on. In the same vein Rajab and Soma (2020) emphasized that the challenges of virtual learning may be internal/subjective and external/objective from the perspective of the teacher. The

researchers outlined lack of interest to learn and adapt to new learning situations, unwillingness to apply ICT in classroom, age old believe of 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 contract, grasp over language often acts as a barrier as virtual classrooms, financial conditions, inadequate practice as internal challenges and 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 as external challenges. Internal challenges in this study signifies the factors in the jurisdiction of the tutor and the learners while external challenges are the ones outside their influence. Achieving quality instructional delivery in the virtual classroom requires an effective classroom management.

Classroom management refers to the general daily maintenance of the classroom, which comprises on classroom rules for student input during instructional time and the types of reward systems used (Martin & Sass, 2010). Adedigba and Sulaiman (2020) averred that 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. In the other hand Dambo and Wokocha (2021) opined that virtual classroom management involves all preventative measures put in place to achieve order in online classrooms for effective instructional delivery in a computer mediated leaning environment.

Instructional delivery refers to the interaction among the student, the teacher, the content, and the knowledge/skills/dispositions students will need for learning and collaborating with others in a diverse society and rapidly changing world (Shaker & Adeeb, 2014). The process of instructional delivery involves applying a repertoire of instructional strategies to communicate and interact with students around academic content, and to support student engagement. Instructional delivery can also be defined as the knowledge of teaching techniques and their application for learning to take place in such a flexible manner that would not distort the original intent of the teacher for being in the classroom (Hallinger, Heck & Murphy, 2014). Quality instructional delivery requires availability of quality learning facilities for quality teaching and learning activities which in turn leads to high academic achievement of students including students undertaking Educational Management programmes.

Educational Management is concerned with the operation of educational organizations through planning, organizing, and directing activities in a school, effectively utilizing human and material resources, to accomplish the school's objectives (Peretomode & Peretomode, 2019). The Educational Management courses are designed to provide highly motivated, conscientious and efficient education managers for all levels of the education system, assists learners in better assigning and managing resources, tracking progress in real time, and making timely and informed decisions, reduce capital leakage and improve cost efficiency, have better control over human resources, allows one to choose, allocate, and monitor each

resource based on its abilities and needs, allows for forecast and plan events as well as make timely decisions for any issues or help in crisis management, and assists in properly allocating responsibilities to the right person, avoiding duplication of efforts.

Statement of the Problem

With the spread of information communication technology tools and its integration in teaching and learning in tertiary institutions and Educational Management programme in particular means more than teaching basic computer skills and software programs. Virtual teaching has changed teaching methods, learning styles and teacher/student relationship. The integration of technological tools in education met with challenges as teachers and students are used to traditional face-to-face mode of teaching and learning. Like the traditional classroom, teachers need to ensure proper classroom management for quality instructional delivery. Unfortunately, Okoro (2020) asserts that the application of modern technologies in teaching has suffered setbacks and, observed a lot of outcries on managing virtual classroom in the delivery of instruction. Also, instructional delivery suffered a huge setback during the COVID 19 era when universities were closed down and E-Learning platforms such as Zoom, Google Classroom etcetera was adopted for teaching and learning in Rivers State Universities. The question is what are the challenges of virtual classroom management in quality instructional delivery of educational management courses in Rivers State owned universities in the 21st century?

Purpose of the Study

The purpose of the study was to investigate the challenges of virtual classroom management and quality instructional delivery of educational management courses in rivers state owned universities in the 21st century. Specifically, the study sought to;

1. Ascertain the extent of internal challenges of virtual classroom management in quality instructional delivery of educational management courses in Rivers State owned universities in the 21st century.
2. Ascertain the extent of external challenges of virtual classroom management in quality instructional delivery of educational management courses in Rivers State owned universities in the 21st century.

Research Questions

The following research questions were answered:

1. To what extent is the internal challenges of virtual classroom management in quality instructional delivery of educational management courses in Rivers State owned universities in the 21st century.
2. To what extent is the external challenges of virtual classroom management in quality instructional delivery of educational management courses in Rivers State owned universities in the 21st century.

Hypotheses

The following null hypotheses were tested:

1. There is no significant difference in the mean responses of Educational Management lecturers of Rivers State University and Ignatius Ajuru University of Education on the

- extent of internal challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century.
2. There is no significant difference in the mean responses of Educational Management lecturers of Rivers State University and Ignatius Ajuru University of Education on the extent of external challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century.

Methodology

The descriptive survey research design was used in conducting the study. The population of the study consisted of all 65 lecturers of Department of Educational Management (EDM) in Rivers State owned Universities. That is, 42 from Rivers State University (RSU) and 23 from Ignatius Ajuru University of Education (IAUoE). The sample size is 65 lecturers, and no sampling technique was used for the study, since the population is small. The instrument used for data collection was a structured questionnaire titled “Challenges of Virtual Classroom Management in Quality Instructional Delivery Questionnaire (CVCMQIDQ). The instrument provided responses to the research questions with 10 items using a 4-point rating scale weighted as Very High Extent (VHE) – 4 Points, High Extent (HE) - 3 Points, Low Extent (LE) – 2 Points and Very Low Extent (VLE) – 1 point. To ensure the consistency of the instrument, the test-retest method of reliability was adopted, and Pearson Product Correlation Coefficient (PPMCC) was used to establish the reliability coefficient of 0,80. 65 copies of the instrument was administered, retrieved, and used for the study. The data analysis was done using the mean to analyze the research questions while z-test was used to test the hypotheses. the mean was obtained by the total summation of all responses as assigned to a rating scale in an item divided the total number of responses: $4+3+2+1= 2.50$. The mean score of 2.50 and above indicate high extent, while those below indicates low extent. Also, the decision rules for the hypotheses were that any hypothesis which z-Test value is less than the z-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: To what extent is the internal challenges of virtual classroom management in quality instructional delivery of educational management courses in Rivers State owned universities in the 21st century.

Table 1: Mean Ratings on Extent is the Internal Challenges of Virtual Classroom Management in Quality Instructional Delivery of Educational Management Courses in Rivers State Owned Universities in the 21st Century

S/N	Items	RSU EDM Lecturers (42)		IAUoE EDM Lecturers (23)		RSU/ IAUoE EDM Lecturers (65)	Decision
		— X	SD	— X	SD	Average Mean Set	
1	Lack of interest by students hinders virtual affects instructional delivery	3.03	0.91	2.98	0.99	3.01	HE
2	Inadequate knowledge of computer operation affects instructional delivery	2.97	1.01	3.22	0.88	3.10	HE
3	Financial challenge affects virtual class	3.53	0.95	2.94	1.05	3.24	HE
4	Inadequate training of teachers hinders virtual instructional delivery	2.78	0.98	3.05	0.86	2.92	HE
5	Lack of concentration by students distorts virtual lecture	2.94	1.00	2.69	1.03	2.82	HE
	Grand Mean/SD	3.05	0.97	2.98	0.96	3.02	HE

Source: Field Survey, 2024

The data presented in Table 1 shows that the responses of the respondents (RSU EDM lecturers and IAUoE EDM lecturers) for items 1-5 had an average mean score of 3.01, 3.10, 3.24, 2.92 and 2.82 respectively and a grand mean of 3.02 This implies that the respondents agree to a high extent that lack of interest by students, inadequate knowledge of computer operation, financial challenge, inadequate training of teachers and lack of concentration by students disrupts virtual instructional delivery.

Research Question 2: To what extent is the external challenges of virtual classroom management in quality instructional delivery of educational management courses in Rivers State owned universities in the 21st century.

Table 2: Mean Ratings on Extent is the External Challenges of Virtual Classroom Management in Quality Instructional Delivery of Educational Management Courses in Rivers State Owned Universities in the 21st Century

S/N	Items	RSU	EDM	IAUoE	RSU/ IAUoE		Decision
		Lecturers (42)		EDM Lecturers (23)	EDM Lecturers (65)	Average Mean Set	
		— X	SD	— X	SD		
1	Erratic power supply hinders instructional delivery	2.95	0.98	2.91	0.92	2.93	HE
2	Unstable internet services distort virtual class	3.09	0.87	2.70	1.17	2.90	HE
3	Limited computer facilities for teachers affect virtual lectures	2.99	0.91	3.08	0.85	3.04	HE
4	Lack of central databases disrupts virtual classes	2.90	1.00	3.00	0.89	2.95	HE
5	High cost of data hinders virtual instructions	3.06	0.90	3.07	0.99	3.07	HE
	Grand Mean/SD	3.00	0.93	2.95	0.96	2.98	HE

Source: Field Survey, 2024

The data presented in Table 2 shows that the responses of the respondents for items 6-10 had an average mean score of 2.93, 2.90, 3.04, 2.95 and 3.07 respectively and a grand mean of 2.98. This infers that the both the RSU lecturers and IAUoE lecturers agree to a high extent that erratic power supply, unstable internet services, limited computer facilities, lack of central databases and high cost of data affects virtual instructional delivery.

Hypothesis 1: There is no significant difference in the mean responses of Educational Management lecturers of Rivers State University and Ignatius Ajuru University of Education on the extent of internal challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century.

Table 3: z-Test Result on Internal Challenges of Virtual Classroom Management in Quality Instructional Delivery of Educational Management Courses in Rivers State Owned Universities in the 21st Century

Respondents	N	— X	SD	DF	SL	z-cal	z-crit	Decision
RSU	42	3.05	0.97	63	0.05	0.29	±1.96	Accepted
IAUoE	23	2.98	0.96					

Source: Field Survey, 2024

Table 3 above revealed a z-calculated value of 0.29 which is less than the z-critical value of ±1.96. Thus, the null hypothesis was accepted. This means that Educational Management lecturers in Rivers State University and Ignatius Ajuru University of Education do not differ significantly on the internal challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century.

Hypothesis 2: There is no significant difference in the mean responses of Educational Management lecturers of Rivers State University and Ignatius Ajuru University of Education on the extent of external challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century.

Table 4: z-Test Result on External Challenges of Virtual Classroom Management in Quality Instructional Delivery of Educational Management Courses in Rivers State Owned Universities in the 21st Century

Respondents	N	— X	SD	DF	SL	z-cal	z-crit	Decision
RSU	42	3.00	0.93	63	0.05	0.21	±1.96	Accepted
IAUoE	23	2.95	0.96					

Source: Field Survey, 2024

Table 4 above revealed a z-calculated value of 0.21 which is less than the z-critical value of ±1.96. Therefore, the null hypothesis was accepted. This infers that Educational Management lecturers in Rivers State University and Ignatius Ajuru University of Education do not differ significantly on the external challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century.

Discussion of Findings

The finding of research question 1 with respect to the extent of internal challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century indicated that the respondents (RSU EDM lecturers and IAUoE EDM lecturers) agree to a high extent that lack of interest by students, inadequate knowledge of computer operation, financial challenge, inadequate training of teachers and lack of concentration by students disrupts virtual instructional delivery. This means that internal challenges of virtual classroom management influence quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century to a high extent. The finding corroborates with Rajab and Soma (2020) who asserted that the challenges in virtual learning include lack of interest, age long believe 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 prominent challenges that deter the effective management of the instructional process in virtual classrooms. The corresponding hypothesis 1 which states that there is no significant difference in the mean responses of Educational Management lecturers of Rivers State University and Ignatius Ajuru University of Education on the extent of internal challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century with a z-calculated value of 0.29 which is less than the z-critical value of ± 1.96 at 0.05 level of significance was accepted. This concludes that there is no significant difference in the mean responses of Educational Management lecturers of Rivers State University and Ignatius Ajuru University of Education on the extent of internal challenges of virtual classroom management in quality instructional delivery of Educational Management courses.

The finding of research question 2 with respect to the extent of external challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century indicated that the respondents (RSU EDM lecturers and IAUoE EDM lecturers) agree to a high extent that erratic power supply, unstable internet services, limited computer facilities, lack of central databases and high cost of data affects virtual instructional delivery. This infers that the external challenges of virtual classroom management influence quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century to a high extent. The finding corroborates with Rajab and Soma (2020) who emphasized that the lack of interest of authority in preparing/providing the appropriate infrastructure is a setback to virtual classroom management. The corresponding hypothesis 2 which states that there is no significant difference in the mean responses of Educational Management lecturers of Rivers State University and Ignatius Ajuru University of Education on the extent of external challenges of virtual classroom management in quality instructional delivery of Educational Management courses in Rivers State owned universities in the 21st century with a z-calculated value of 0.21 which is less than the z-critical value of ± 1.96 at 0.05 level of significance was accepted. This infers that there is no significant difference in the mean responses of Educational Management lecturers of Rivers State University and Ignatius Ajuru

University of Education on the extent of external challenges of virtual classroom management in quality instructional delivery of Educational Management courses.

Conclusion

Based on the results and findings of this research work, it was concluded that internal challenges such as lack of interest by students, inadequate knowledge of computer operation, financial challenge, inadequate training of teachers and lack of concentration by students and external challenges such as erratic power supply, unstable internet services, limited computer facilities, lack of central databases and high cost of data affects virtual instructional delivery. Also concluded was that there is no significant difference in the mean responses of Educational Management lecturers of Rivers State University and Ignatius Ajuru University of Education on the extent of internal and external challenges of virtual classroom management in quality instructional delivery of Educational Management courses in the 21st century.

Recommendations

1. Rivers State Government should provide ICT tools for state universities and massively embark on training and retraining of lecturers and students on usage of the tools for hitch-free virtual instructional delivery of Educational Management courses.
2. Government of Rivers State in collaboration with the schools' management should provide free internet services to the state universities to help improve virtual classroom management in quality instructional delivery of Educational Management courses.

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