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Influence of facilitators' competencies on effective delivery of open and distance learning Programmers in distance education in Rivers State

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Abstract
The study investigated the influence of facilitators' competencies on effective delivery of Open and Distance Learning Programme in Distance Education in Rivers State. The descriptive survey research design was adopted for the study. The population of the study consisted of 3,115 respondents (163 facilitators and 2,955 distance learners) of National Open University of Nigeria, Port Harcourt Centre. A sample of 344 (49 facilitators and 295 third year active learners) was selected using the stratified sampling technique while purposive sampling technique was used to choose the study centres in Port Harcourt Centre. A self-structured research instrument titled "Effective Delivery of Distance Learning Programmes Questionnaire (EDDLPQ)", formatted on 4-point Likert rating scale was used for data collection. The questionnaire was validated by two experts in the Department of Educational Management and one expert in the Department of Educational Foundations (Measurement and Evaluation Unit) of the Rivers State University. The reliability coefficient of the instrument was determined using cronbach alpha statistics which yielded an Internal consistency overall reliability index of 0.77. Mean scores and standard deviations were used to analyse data while z – test was used to test the hypotheses at 0.05 level of significance. The findings of the study revealed that facilitators' competencies such as pedagogical, technological and course administration strategies are of importance as they have high extent of influence on effective delivery of Open and Distance Learning programmes in Distance Education. It therefore recommended among others that online facilitators should have opportunities to learn (both formally and informally) on how to use all applications to enhance their instructions and increase their confidence and capabilities, so that they will be able to identify knowledge and skills which can be acquired through digital tools and resources, the learning styles better matched to these, and opportunities for students to learn outside the learning in classroom environment.

Keywords: Facilitators' competency, effective instruction, open and distance learning programme, distance education

Introduction
As the need for educated individuals equipped with 21st century skills increases, the demand of individuals acquiring education anywhere and anytime according to their own pace increases too. Open and distance education provides this essential opportunity to anyone who has the desire to learn something. Distance education is an umbrella term which describes all the teaching-learning arrangements in which the learner and the teacher/facilitator are separated by space and time. In fact, it is a mode of delivering education and instruction to learners who are not physically present in a traditional setting of classroom. Transaction of the curriculum is effected by means of specially prepared materials (learning materials) which are delivered to the learners at their doorstep through various media such as print, audio/videotapes, Internet and World Wide Web, etc.

Also, a technological medium replaces the inter-personal communication of conventional classroom-based education that takes place between the teacher and the learners. Communication between the institution, teacher, and learners is mainly through electronic media (telephone, chat sessions, email, website, etc) and also through postal correspondence and limited face to face contact sessions held at Study Centres that are set up by the Distance Education (DE) institutions as close to the learners' homes as possible (Mind Admission, 2021) [20]. The instructional activities of Distance Education are driven through Open and Distance Learning programmes which enable the teacher or facilitator and student or learner to have the choice of communication without the limitations of geographical space, time for instructions and access to learning materials based on far separation between the instructor and learner (Mind Admission, 2021) [20].

Open and Distance Learning (ODL) has offered access to many people who would have previously been denied access to educational opportunities based on where they live and work, poor-economic circumstances, social status, etc (Jimoh, 2013) [17]. Open and Distance Learning remains the primary mechanism for the information-driven age, a tool that has bridged the gap between developed and developing communities. According to Alaezi in Jimoh (2013) [17], Open and Distance Learning refers to educational patterns, approaches and strategies that permit people to learn without barriers in respect of time and space, age, and previous educational qualification - no entry qualification, no age limit, no regard to sex, race, tribe and state of origin. By implication, it meets the specific and special educational need of variety of learners.

However, to live up to expectation, the instructor or facilitator needs to be competent in his or her area with adequate professional training and make effective use of these to promote effectiveness and efficiency in his lesson delivery (Owuamanam, 2018) [23]. Effective instruction or teaching or delivery is that which stimulates and inspires the learners into attaining the desired instructional/lesson objectives, maintaining positive attitude and using the knowledge and skills gained in solving problems in new situations (Owuamanam, 2016) [22]. Therefore, teaching effectively in open and distance learning programmes requires that the online instructor or facilitator must acquire a number of basic qualities like adequate knowledge of subject matter, abilities to set and pursue desirable instructional objectives, competency in lesson preparation, presentation and evaluation. In addition, he must be able to motivate his students and possess the ability to organize, coordinate and utilize personnel materials and facilities in and around the class to promote and enhance efficiency and effectiveness in instruction (Owuamanam, 2018) [23].

Studies have showed that a lot of variety among course delivery methods used by different facilitators or instructors exists. According to Allen and Saeman there are, principally, four (4) classifications of delivery mode: traditional face-to-face, Web-facilitated, blended and fully online. In open and distance learning (ODL), the blended, a combination of face-to-face and online or fully online can be used as delivery mode. When applying the face-to-face mode, the facilitator or instructor delivers lectures, tutorials or uses varieties of instructional methods and learning materials, print and electronic, in live classrooms or laboratories. Notably, this instructional approach is teacher-centred or a combination of teacher-centred and learner-centred. The facilitator or instructor also supplement the face-to-face mode with online learning using web-based materials or Open Education Resources (OER) available in the Internet or structured materials in the form of self-instructional materials (SIM) usually parked in a Learning Management System (LMS) such as *Blackboard*, *Moodle* or some home-grown LMS or bespoke system developed locally by the institutions as practized in most distance learning institutions such as Open University Malaysia and Asia e-University (Hashim, 2015) [15]. However, in fully online, normally there is no face-to-face interaction between the lecturers and the learners. To substitute the face-to-face component, online learning technologies such as audio and video conferencing are used, delivered individually or in group using text, audio and video tools available in the Internet or using mobile learning technologies (Hashim, 2015) [15]. According to Barber, Donnelly, Rizvi and Summers (2013) [7], innovative teaching pedagogies, learning skills, and assessment techniques have surfaced to adapt to these changes in the mode of delivering courses online. This development implies that the facilitators should be aware of who the learners are, what learners need to learn, how to teach them, as well as the skills or competencies that they, as facilitators, need to master so that they effectively deliver their role (Palloff & Pratt, 2013; Scobey, 2012) [25].

Facilitator competency is the skill that is needed for optimum performance in Open and Distance Learning programmes. For the facilitators of Open and Distance Learning programmes to effectively deliver their role and ensure the students' or learners' enthusiasms for online learning are maintained and sustained, they must possess instructional competencies that enhance effective teaching and learning processes in Distance Education. These competencies needed for effective delivery of Open and Distance Learning programmes are not in any way far from the ones required for effective and efficient discharge of instructional activities in the traditional face-to-face learning situations. But the difference may be in the application which should differ from the synchronous mode of learning as the mode of teaching and learning in Distance Education involves learning through technological tools: facilitators and learners extremely far from each other, learning materials are made available through Internet and learners expected to access them by themselves with little or no assistance from the instructors, time for lecture and others. Alman and Tomer (2012) [4] emphasizes that online instructors must pay attention to what they need to create, develop, and manage their online courses and how to effectively communicate with the students in the absence of physical presence and interaction. Teaching online necessitates a commitment to the principles of online learning in order to be able to create and maintain a teaching, social, and cognitive presence.

Competencies are commonly defined as the "applied skills and knowledge that enable people to successfully perform in professional, educational, and other life contexts" (Gosselin, 2020) [13]. The online facilitator's competencies are the facilitation strategies that enhance effective teaching and learning of online courses in distance education. Some researchers briefly list online competencies as personal, social, pedagogical, and technological in addition to a set of competencies related to the content, design, communication, and management (Baran & Correia, 2014; Palloff & Pratt, 2011) [6, 24]. Finally, Bigatel, Ragan, Kennan, May, and Redmond (2012) [8] specify the competencies based on

successful online teaching tasks into seven categories: (a) active learning, (b) administration and leadership, (c) active teaching and responsiveness, (d) multimedia technology, (e) classroom decorum, (f) technological competence, and (g) policy enforcement. In view of this study, three online competencies are considered, namely; pedagogical competency; technological competency; and course administration competency.

Pedagogical competency refers to the strategies the facilitator models to create an active and participatory learning environment for learners in the online classroom (Farmer & Ramsdale, 2016) [11]. Through regular learner interaction, facilitators keep learners on task, provide feedback, support group work, modify materials, and assess teaching strategies. Learners experience a greater sense of inclusion and connection both with their facilitator, as well as with their peers. Vikas and Mathur (2021) [32] conducted a study to find out the student or learner perception of online classes from teachers who had no past experience of online teaching, with respect to their teaching effectiveness, teaching style and pedagogy in an online classroom. The findings of the study indicate that pedagogy significantly affect student's perception towards online classes by first time online teachers. It concluded that the role of the teachers has changed drastically and there is a need for them to prepare themselves for the new normal using the suitable pedagogical tools for creating an effective online classroom. Simsek, Kucuk, Biber and Can (2021) [29] conducted a study on development of teaching competencies scale for University instructors. When the factor structure of the scale was examined, the explained variance of the "pedagogy" dimension, which expresses the pedagogical knowledge level of the teachers, was 35.5% and it has the most important place in the structure of the scale. They suggested that instructors (facilitators) with a high level of pedagogical competency should clearly state the important goals and subjects of the course in the online course process. They also stated that it is very important for the online instructors to make the necessary preparations before the courses, conduct their courses willingly and use the teaching methods and techniques that will ensure the participation of the students in the course process. Swan (2001) [30] opined that learner to facilitator interaction and active discussions significantly impact learner's satisfaction and their perceived learning of the course material in asynchronous online environments. According to Eskey and Schulte the instructors' prompt responses to questions in the discussion and via email are two important pedagogical facilitation strategies for students to be successful in online courses.

Open and Distance Learning programmes is effectively enhanced through the use information and communication technology (ICT) tools such as Smartphone, Laptop, ipad, computer, etcetera and channels of transmission like Internet, emails, WhatsApp platform and others. In online learning, their (technological tools) effective use enable learners and facilitators interphase between content and context of learning and being remotely connected (Yarhere, Obuzor & Fomsi, 2020) [30]. The technological competencies require the online learning facilitators or instructors to select and organize tools and technology for learning. Facilitators access and manage course technology to ensure that tools are productive, easy for learners of varying ability to use, and align with the course learning outcomes. Learners benefit from the ability to focus on learning the knowledge and skills for the course rather than on learning the tool itself (Farmer & Ramsdale, 2016) [11].

The study by Apata (2019) [5] which focused on how Open and Distance Learning (ODL) physics can be improved through learners-facilitators' instructional practices in National Open University of Nigeria revealed that the use of email technique allows communication between students and faculty (facilitator). The email technology could give facilitators privilege to monitor the performance of their learners in specific tasks, who could also render support and receive feedback from the learners. Yarhere, Obuzor and Fomsi (2020) [30] conducted a study to identify the current familiarity and use of online classroom platforms (technological tools) by 128 medical students and Paediatric resident in training in University of Port Harcourt Teaching Hospital. The result of the study shows that both groups had high familiarity, but low use, of Google classroom, and preferred mobile devices to laptops. It also indicated that there was high familiarity 90.6%, but low use 42.2%, of Google classroom and the ease of using Google classroom for interphasing or interacting between learners and facilitators was affected by Internet availability. By this, the facilitators' technological competency in relationship to the effective use the technological tools was not to a high extent since the percentage was 42%.

In the study conducted by Simsek, Kucuk, Biber and Can (2021) [29] on development of teaching competencies scale for University instructors; the result posited that in the teaching from distance process, instructors have to use software and hardware tools. The technology dimension of the scale includes the ability of instructors to effectively use the hardware and software tools required by distance education and to solve the technical problems they encounter on their own. The study further stated that as a matter of fact, in the online teaching process, video conferencing applications such as Google Meet, Microsoft Teams, Zoom, online storage spaces such as Google Drive, Dropbox, Yandex Drive, learning management systems such as Moodle, Google Classroom, Canvas, and various Web 2.0 applications are frequently used to increase interaction in the course. Therefore, it is very important for the instructors to have the technical competencies to use such tools in the online education process.

In online teaching and learning environment, course administration competency is used to refer to those activities directly related to the teaching and learning activities involved in the online course (Ragan, 2015) [26]. The essential role of the online instructor is to act as a leader and facilitator. Their role is to guide students, focus discussions, provide examples, and model behaviours that demonstrate critical concepts, principles, and skills. Such practices help learners navigate course activities and learning experiences both within the course as well as in their programmes (Farmer & Ramsdale, 2016) [11]. On the other hand, online instructors should focus on organizational structure, such as learning objectives, due dates, and expectations to facilitate effective online learning (Gonzalez-Sanmamed, Munoz-Carril, & Sangra, 2014; Richardson, Koehler, Besser, Caskurlu, Lim, & Mueller, 2015) [12, 27]. Research indicates that instructors' facilitation in terms of prompt response to questions and timely feedback on assignments are important in creating instructor presence, student engagement in their courses, and facilitating higher levels of learning (Hodges & Cowan, 2012; Martin, Wang & Sadaf, 2018) [16, 19]. In online courses,

instructors sending weekly reminders activities and assignments that are due is helpful for learners to manage their time effectively (Kelly, 2014) [18].

Examination of the study carried out by Simsek, Kucuk, Biber and Can (2021) [29] on development of teaching competencies scale for University instructors; they highlighted that in the online teaching process, courses are conducted over various learning management systems (LMS). The Course Administration dimension of the scale includes the applications performed by online tutors on LMS. Learning management systems have features such as module, calendar, homework, online exam, discussion, integration with live course systems. The result of the study also indicated that effective use of such features of the learning management system in structuring the online teaching process will facilitate the Course Administration process. On the other hand, activities carried out over LMS are very important for effective communication and interaction processes. The study carried out by Gosselin, Northcote, Reynaud, Kilgour, Anderson and Boddey (2016) [14] which examined the threshold concepts, threshold attitudes, and threshold skills of the instructors revealed that instructors' competence in course design, facilitated interaction, engaging meaningfully in online learning contexts, management of assessment process, setting up and modifying online learning, tracking student attendance and progress enhance higher level teaching and learning.

Statement of the Problem

The population of Rivers State is ever increasing and number of persons seeking for higher education is also rising. The few higher institutions in Rivers State cannot absorb those qualified or yearning for qualitative education including the teaming population of secondary school leavers who are qualified for admission but do not have access for qualitative education for one reason or the other (National Open and Distance Learning Programme, 2012) [21]. Due to these higher institutions most individuals have decided to embrace online learning which may be caused by the recent technological developments and changes in social life.

Furthermore, after the Corona Virus (COVID19), the disease that emerged in the last quarter of 2019 and spread worldwide within a very short time was classified by The World Health Organization's (WHO) as a global epidemic, the popularity of distance education went off charts (Simsek, *et al*., 2021) [29]. According to United Nation Education, Science and Cultural Organization (2020) data, while the education life of approximately 300 million students (17.1% of students receiving education) was restricted in March due to the epidemic, this number reached approximately 1.5 billion (84.3%) within a month. As a result, educational institutions have had to urgently stop face-to-face education at all levels from kindergartens to higher education in this process and switch to distance education practices.

However, having effective online teaching or inter phasing between the learners and facilitators is a different curve that must be achieved in the era of 21st century learning with the learners in Rivers State. Hence, it is very important that the facilitators demonstrate competence that enhances effective learning in online environments. In this direction, this study has been carried out to examine the influence of facilitators' pedagogical, technological, and course administration competencies on effective delivery of Open and Distance Learning programmes in Distance Education in Rivers State.

Purpose of the Study

The purpose of the study is to investigate the influence of facilitators' competencies on effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State. The objectives of the study are specifically to:

1. Examine the extent to which facilitators' pedagogical competency influence effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.
2. Ascertain the extent to which facilitators' technological competency influence effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.
3. Determine the extent to which facilitators' course administration competency influence effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

Research Questions

The following research questions were raised to guide the study:

1. To what extent does facilitators' pedagogical competency influence effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State?
2. To what extent does facilitators' technological competency influence effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State?
3. To what extent does facilitators' course administration competency influence effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State?

Hypotheses

The following null hypotheses were formulated for testing.

1. There is no significant difference between the mean ratings of the facilitators' and learners' opinion on the extent to which facilitators' pedagogical competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.
2. There is no significant difference between the mean ratings of the facilitators' and learners' opinion on the extent to which facilitators' technological competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.
3. There is no significant difference between the mean ratings of the facilitators' and learners' opinion on the extent to which facilitators' course administration competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

Methodology

The study adopted a descriptive survey research design. Nworgu said that this design aims at collecting data on, and describing in a systematic manner, the characteristics, features or facts about a given population. The population of the study comprised 3,115; one hundred and sixty-three (163) facilitators and two thousand, nine hundred and fifty-two (2,955) distance learners (students) of the National Open University of Nigeria, Port Harcourt study centres at Obiri-

Ikwere Junction, NTA/Choba Road, Ozuoba; Rumuolumeni; and St. John Campus, Aba Road (Source: National Open University of Nigeria website). The sample size consisted of 344 respondents representing 10.5% of the targeted population. The stratified sampling technique was used to select 49 facilitators that have instructed for atleast five (5) sessions and 295 third-year active learners (2020/2021 session) through lucky dip. The study centres were purposively chosen based on the fact that they are officially listed as approved and accredited centres by National Open University of Nigeria. A self-structured research instrument titled "Effective Delivery of Distance Learning Programmes Questionnaire (EDDLPQ)" was developed for data collection for the study. The questionnaire was made up of two sections; A and B. Section A of the questionnaire shown the demographic data of the respondents (see appendix 1, page 21) while section B consisted of three (3) clusters; A to C, with 17-item statements relating to the three (3) research questions. The questionnaire items were designed on a four-point modified Likert rating scale of very highly extent (VHE) rated 4-points, high extent (HE) rated 3-Points, low extent (LE) rated 2-Points and very low extent (VLE) rated 1- Point. These weights were summed up 4 + 3 +2 +1 = 10/4 = 2.50 which is the criterion mean score for agreeing or disagreeing with the items. To establish the validity of the instrument, the questionnaire was subjected to face and content validity by two experts in the Department of Educational Management and one expert in the Department of Educational Foundations (Measurement and Evaluation Unit) of the Rivers State University. The reliability of the instrument was determined using Cronbach alpha statistical technique and the coefficient of reliability of the clusters A to C were A = 0.79, B = 0.81 and C = 0.78 respectively. The calculated overall reliability index for the items was 0.79. The retrieved copies of questionnaire were 324 (41facilitators and 283 students) representing 94.2% of the 344 copies administered to the respondents. Data collected from the respondents was used for the study. The research questions raised were analysed using mean and standard deviation while the null hypotheses were statistically tested using the z-test at 0.05 level of significance. Any response therefore, with a calculated z-value above 1.96 was rejected and below 1.96 was accepted.

Results

Answer to Research Questions

Research Question 1: To **w**hat extent does facilitators' pedagogical competency influence effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State?

Table 1: Mean and Standard Deviation Ratings on the extent Facilitators' Pedagogical Competency influence Effective Delivery of Open and Distance Learning Programmes in Distance Education in Rivers State

SN	Item	Facilitators: N=41		Students: N=283		Mean Set	Decision
	Facilitation Strategies	x̄	SD	x̄	SD		
1	Prompt feedback to enhance communication between students and facilitator.	2.85	1.13	3.09	0.92	2.97	HE
2	Group projects to support peer learning	2.83	1.09	2.88	1.04	2.86	HE
3	Synchronous sessions to present content or answer questions.	2.98	1.11	3.05	0.99	3.02	HE
4	Students to take active role in leading discussions or presenting projects etc.	2.83	1.14	2.99	0.94	2.91	HE
5	Consistent course structure content available to students through scaffolding, signposting and laying materials.	2.90	0.97	2.63	1.09	2.77	HE
6	Having personal interaction with students for clarifying the concepts.	3.33	0.82	3.02	0.90	3.18	HE
	Grand Mean and Standard Deviation	2.95	1.04	2.94	0.98	2.95	HE

Table 1 indicated that the responses of the facilitators to the items 1, 2, 3, 4, 5 and 6 generated mean scores of 2.85, 2.83, 2.98, 2.88, 2.90 and 3.33 while the responses of the learners to the same items gave mean scores of 3.09, 2.88, 3.05, 2.99, 2.63 and 3.02. Meanwhile, the facilitators accepted the most on item 6 with mean score of 3.33 and the least on item 2 and 4 with mean score of 2.83 each. The students accepted the most on item 1 with mean score of 3.09 and the least on item 5 with mean score of 2.63. However, the average mean set score of 3.18 of the facilitators and learners showed that the item 6, having personal interaction with students for clarifying the concepts, influences highly. The different mean scores were accepted with a grand mean of 2.95 (above 2.50 mean criterion) indicating that the pedagogical competency of online facilitators has high influence on effective delivery of Open and Distance Learning in Distance Education in Rivers State.

Research Question 2: To **w**hat extent does facilitators' technological competency influence effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State?

Table 2: Mean and Standard Deviation Ratings on the Extent Facilitators' Technological Competency Influence Effective Delivery of Open and Distance Learning Programmes in Distance Education in Rivers State

SN	Item	Facilitators: n=41		Students: n=283		Mean Set	Decision
	Facilitation Strategies	x̄	SD	x̄	SD		
7	Organize tools and technology to focus learners on the task at hand.	2.95	1.02	2.65	1.04	2.80	HE
8	Monitor and reflect upon course tools to identify opportunities for learners' improvement.	2.86	1.09	3.21	0.87	3.04	HE
9	Integrate the use of technology to create meaning and relevance for learners.	3.00	0.89	2.95	0.90	2.98	HE
10	Design and develop learning resources which use technology to effectively create relevance and increase learners' engagement.	2.90	1.09	2.93	0.96	2.92	HE
11	Create content in the form of short videos/multimedia (e.g., articulate modules) to enhance learners' active learning and retention of course.	3.15	0.94	3.20	0.84	3.18	HE
	Grand Mean and Standard Deviation	2.97	1.01	2.99	0.92	2.98	HE

Table 2 showed that the responses of the facilitators to the items 7,8, 9, 10 and 5 produced mean scores of 2.95, 2.86, 3.00, 2.90 and 3.15 while the responses of the learners to the same items gave mean scores of 2.65, 3.21, 2.95, 2.93 and 3.20. However, item 11 with mean score of 3.15 was the most agreed item by the facilitators and the least on item 8 with mean score of 2.86. The learners agreed the most on item 8 with mean score of 3.21 and the least on item 7 with mean score of 2.65. Furthermore, the facilitators' and learners' average mean set score of 3.18 revealed that the item 11, Create content in the form of short videos/multimedia (e.g., articulate modules) to enhance students' active learning and retention of course, influences highly. The various mean scores were agreed with a grand mean of 2.98 (above 2.50 mean criterion) implying that the technological competency of online facilitators has high influence on effective delivery of Open and Distance Learning in Distance Education in Rivers State.

Research Question 3: To what extent does facilitators' Course Administration competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State?

Table 3: Mean and Standard Deviation Ratings on the Extent Facilitators' Course Administration Competency Influence Effective Delivery of Open and Distance Learning Programmes in Distance Education in Rivers State

SN	Item	Facilitators: n=41		Students: n=283		Mean Set	Decision
	Facilitation Strategies	$\bar{x}$	SD	$\bar{x}$	SD		
12	Design learning material which is relevant to the overall goals and outcomes of the course.	2.71	1.05	3.00	0.96	2.86	HE
13	Embrace diversity of learners, and foster an environment of respect and equity in the classroom.	2.83	1.05	2.96	0.96	2.90	HE
14	Manage workload and stress so as to minimize the any negative impact of work on life and vice-versa.	2.66	1.09	2.89	1.05	2.78	HE
15	Elicit trust by modeling and rewarding effective behaviours (e.g., following through on commitments).	2.86	1.07	2.97	0.96	2.92	HE
16	Focus the discussion, questions and reflections on specific concepts within the course content.	2.83	1.14	2.90	0.99	2.87	HE
17	Maintain a non-authoritarian, democratic and inclusive style in the classroom.	3.39	0.83	3.33	0.83	3.36	HE
	Grand Mean and Standard Deviation	2.88	1.04	3.01	0.96	2.95	HE

Table 3 exhibited that the mean scores of the facilitators' responses to the items 12, 13, 14, 15, 16 and 17 were 2.71, 2.83, 2.66, 2.86, 2.83 and 3.39 while the mean scores of the learners' responses to the same items were 3.00, 2.96, 2.89, 2.97, 2.90 and 3.33. On the other hand, the facilitators accepted the most on item 17 with mean score of 3.39 and the least on item 12 with mean score of 2.71. The learners accepted the most on item 17 with mean score of 3.33 and the least on item 14 with mean score of 2.89. However, the facilitators' and learners' average mean set score of 3.36 highlighted that the item 17, maintain a non-authoritarian, democratic and inclusive style in the classroom, influences highly. The grand mean score of facilitators 2.88 and the grand mean of learners 3.01which were above 2.50 mean criterion proved that the course administration competency of online facilitators has high influence on effective delivery of Open and Distance Learning in Distance Education in Rivers State.

Test of Hypotheses

Hypothesis 1: There is no significant difference in the mean rating of the facilitators' and learners' opinion on the extent to which facilitators' pedagogical competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

Table 4: Summary of z-test Analysis of the Difference between the Mean Rating of the Facilitators and Students on the Extent Facilitators' Pedagogical Competency influence Effective Delivery of Open and Distance Learning Programmes in Distance education in Rivers State

Variables	N	Mean	SD	Df	z-cal	z-crit	Level of Significance	Decision
Facilitators	41	2.95	1.04					
				322	0.23	1.96	0.05	Accepted
Learners	283	2.99	0.92					

Table 4 revealed that at 322 degree of freedom and 0.05 level of significance, the value of the z-critical of 1.96 was greater that the value of z-calculated of 0.23, therefore the null hypothesis was not rejected and denoted that there is no significant difference in the mean rating of the facilitators and learners on the extent to which facilitators' pedagogical competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

Hypothesis 2: There is no significant difference in the mean rating of the facilitators' and learners' opinion on the extent to which facilitators' technological competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

Table 5: Summary of z-test Analysis of the Difference between the Mean Rating of the Facilitators and Students on the Extent Facilitators' Technological Competency influence Effective Delivery of Open and Distance Learning Programmes in Distance Education in Rivers State

Variables	N	Mean	SD	Df	z-cal	z-crit	Level of Significance	Decision
Facilitators	41	2.97	1.01					
				322	0.18	1.96	0.05	Accepted
Learners	283	2.94	0.98					

Table 5 indicated that the value of z-calculated of 0.18 was less than the value of z-critical of 1.96 at 322 degree of freedom and 0.05 level of significance and implied that the null hypothesis was not rejected. It further indicated that there is no significant difference in the mean rating of the facilitators and learners on the extent to which facilitators' technological competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

Hypothesis 3: There is no significant difference in the mean rating of the facilitators' and learners' opinion on the extent to which facilitators' course administration competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

Table 6: Summary of z-test Analysis of the Difference between the Mean Rating of the Facilitators and Students on the extent Facilitators' Course Administration Competency influence Effective Delivery of Open and Distance Learning Programmes in Distance Education in Rivers State

Variables	N	Mean	SD	Df	z-cal	z-crit	Level of Significance	Decision
Facilitators	41	2.88	1.04					
				322	0.76	1.96	0.05	Accepted
Learners	283	3.01	0.96					

Table 6 showed that at 322 degree of freedom and 0.05 level of significance, the value of z-calculated of 0.76 was less than the value of z-critical of 1.96 and revealed that the null hypothesis was not rejected. It also signified that there is no significant difference in the mean rating of the facilitators and learners on the extent to which facilitators' course administration competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

Discussion of Findings

In Table 1, the responses from the respondents clearly showed that the facilitators and learners accepted that facilitators having personal interaction with learners for clarifying that the concepts highly influenced effective delivery of Open and Distance Learning programmes in Distance Education in Rivers State. This finding agrees with Swan (2001) [30] who found that student to facilitator interaction and active discussions significantly impact on student's satisfaction and their attentive learning of the course material in asynchronous online environments. According to Eskey and Schulte the instructors' prompt responses to questions in the discussion and via email are two important pedagogical facilitation strategies for students to be successful in online courses. The finding of this study supports Vikas and Mathur (2021) [32] who conducted a study to find out the learners perception of online classes from facilitators who had no past experience of online teaching, with respect to their teaching effectiveness, teaching style and pedagogy in an online classroom. The findings of their study indicate that pedagogy significantly affect student's perception towards online classes by first time online teachers (facilitators). The study also revealed on table 4 that there was no significant difference in the mean rating of the facilitators and learners on the extent to which facilitators' pedagogical competency influenced effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

In the finding of the study on table 2, the responses of the facilitators and students profoundly showed that they agreed that creating content in the form of short videos/multimedia (e.g., articulate modules) to enhance students' active learning and retention of course is one of the technological competencies that highly influenced effective delivery of Open and Distance Learning programmes in Distance Education in Rivers State. This study is in agreement with the finding of Simsek, Kucuk, Biber and Can (2021) [29] on online teaching competencies: pedagogy, facilitation, technology and course administration; which stated that in the online teaching process, video conferencing applications such as Google Meet, Microsoft Teams, Zoom, online storage spaces such as Google Drive, Dropbox, Yandex Drive, learning management systems such as Moodle, Google Classroom, Canvas, and various Web 2.0 applications are frequently used to increase interaction (teaching and learning activities) in the course (Open and Distance Learning programmes). Besides, the study further shown on table 5 that there was no significant difference in the mean rating of the facilitators and students on the extent to which facilitators' technological competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

From table 3, the facilitators and students accepted that the practice of Maintaining a non-authoritarian, democratic and inclusive style in the classroom (online environment) by the instructors highly influenced effective delivery of Open and Distance Learning programmes in Distance Education in Rivers State. The result of this study agreed with Farmer and Ramsdale (2016) [11] who opined that the essential role of the online instructor is to act as a leader and facilitator. They added that the role of the facilitators is to guide students, focus discussions, provide examples, and model behaviours that demonstrate critical concepts, principles, and skills and such practices help learners navigate course activities and learning experiences both within the course as well as in their programmes. It is obvious that when the teachers (facilitators) are approachable and student-centered in Open and Distance learning (ODL), the barriers to effective relationship, interaction and communication will be drastically reduced, and therefore promote a healthy learning atmosphere for successful students' academic performance and achievements of their online programmes. The study also revealed on table 6 that the test of the hypothesis stated that there was no significant difference in the mean rating of the facilitators and students on the extent to which facilitators' course administration competency influences effective delivery of Open and Distance Learning Programmes in Distance Education in Rivers State.

Conclusions

Based on the findings of the study, it was concluded that the facilitators' competencies such as pedagogical, technological and course administration strategies are of importance as they have high extent of influence on effective delivery of Open

and Distance Learning programmes in Distance Education. The grand mean scores of the facilitators and students were almost equal. This suggests that online teaching-learning facilitation strategies that prompt feedback to enhance communication between students and facilitator; enable instructors to monitor and reflect upon course tools to identify opportunities for students' improvement; to design learning material which is relevant to the overall goals and outcomes of the course; to maintain a non-authoritarian, democratic and inclusive style in the classroom; to integrate the use of technology to create meaning and relevance for students; and to create content in the form of short videos/multimedia (e.g., articulate modules) to enhance students' active learning and retention of course should be used in Open and Distance learning situation for better students' academic outcome.

Recommendations

The following recommendations were made, based on the findings:

1. The online facilitators should have opportunities to learn (both formally and informally) on how to use all applications to enhance their instructions and increase their confidence and capabilities. If the facilitators do, they would be able to identify knowledge and skills which can be acquired through digital tools and resources, the learning styles better matched to these, and opportunities for students to learfn outside the learning classroom environment.
2. Institutions operating Distance Education should create policies that will cause facilitators to carry out learning activities over Learning Management Systems such as Canvas and Google Classroom for effective communication and interaction process and effective management of time and course, demonstration of leadership qualities, establishment of rules and regulations which are very important for effective delivery of online programmes.
3. The facilitators should be motivated with incentives that will encourage them to practice the new normal for effective and efficient delivery of Open and Distance Learning programmes in Distance Education because the cost-effect and cost-benefit are enormous.

References

1. Allen E, Saeman J, Garrett R. Blending in: The extent and promise of blended education in the United States. Annual Report, Sloan Consortium, Babson Survey Research Group; 2007. Retrieved on February 20; c2007, from http://www.sloan-c.org/publications/survey/staying_course
2. Allen E, Seaman J. Changing course: Ten years of tracking online education in the United States. Babson Survey Research Group; c2013.
3. Allen IE, Seaman J. Grade change: Tracking online education in the United States. Babson Survey Research Group and Quahog Research Group; c2014.
4. Alman SW, Tomer C. Designing online learning: A primer for librarians. ABC-CLIO; c2012.
5. Apata FS. Online Instructional Delivery Practices for Improved Physics Learning in National Open University of Nigeria. West African Journal of Open & Flexible Learning. 2019;8(1):52-69.
6. Baran E, Correia AP. A professional development framework for online teaching. Tech Trends. 2014;58(5):95-101.
7. Barber M, Donnelly K, Rizvi S, Summers L. An avalanche is coming: Higher education and the revolution ahead. Institute for Public Policy Research, London, UK; 2013. Retrieved on May 10, 2013, from http://www.ippr.org/publication/55/10432/an-avalanche-is-coming-higher-education-and-the-revolution-ahead
8. Bigatel PM, Ragan LC, Kennan S, May J, Redmond BF. The identification of competencies for online teaching success. Journal of Asynchronous Learning Networks. 2012;16(1):59-77. Retrieved on August 21, 2012, from https://doi.org/10.24059/olj.v16i1.215
9. Brinkley-Etzkorn KE. Learning to teach online: Measuring the influence of faculty development training on teaching effectiveness through a TPACK lens. The Internet and Higher Education. 2018;38:28-35. Retrieved on April 4, 2018, from https://doi.org/10.1016/j.iheduc.2018.04.004
10. Carraccio C, Wolfsthal SD, Englander R, Ferentz K, Martin C. Shifting paradigms: From Flexner to competencies. Academic Medicine. 2002;77(5):361-367. Retrieved on March 15, 2002, from http://journals.lww.com/academicmedicine/Abstract/2002/05000/Shifting
11. Farmer HM, Ramsdale J. Teaching competencies for the online environment. Canadian Journal of Learning and Technology. 2016;43(3):1-14.
12. Gonzalez-Sanmamed M, Munoz-Carril P, Sangra A. Level of proficiency and professional development needs in peripheral online teaching roles. International Review of Research in Open & Distance Learning. 2014;15(6):162-187.
13. Gosselin D. Competency and learning outcomes. National Science Foundation; c2020. https://serc.carleton.edu/184607
14. Gosselin KP, Northcote MT, Reynaud D, Kilgour PW, Anderson M, Boddey C. Development of an evidence-based professional learning program informed by online teachers' self-efficacy and threshold concepts. Online Learning Journal. 2016;20(3):178-194.
15. Hashim Y. Instructional and Learning Design in Open and Distance Learning (ODL) in Higher Education. Asia e University; c2015.
16. Hodges CB, Cowan SF. Preservice teachers' views of instructor presence in online courses. Journal of Digital Learning in Teacher Education. 2012;28(4):139-145.
17. Jimoh M. An Appraisal of the Open and Distance Learning Programme in Nigeria. Journal of Education and Practice. 2013;4(3):1-8.
18. Kelly R. Five things online students want from faculty. Faculty Focus; c2014. Retrieved from https://www.saddleback.edu/uploads/five_things_online_students_want_from_faculty
19. Martin F, Wang C, Sadaf A. Student perception of helpfulness of facilitation strategies that enhance instructor presence, connectedness, engagement and learning in online courses. The Internet and Higher Education. 2018;37:52-65.
20. Mind Admission. What is Open and Distance Learning (ODL)?; c2021. Retrieved from https://www.mindadmission.com/what-is-open-and-distance-learning-odl/ on August 8, 2021.
21. National Open and Distance Learning Programme. Open

and distance learning begins. Nigerian Tribune. 2012;12(4):15-180.
22. Owuamanam CN. Language Provisions of National Policy on Education and the Educational Technology for Effective Teaching of Nigerian Languages. A Journal of the National Institute for Nigerian Languages, Aba. 2016;3:30-42.
23. Owuamanam CN. Educational Technology as a Key to Effective Lesson Delivery. International Journal of Information, Technology and Innovations in Africa. 2018;13(2):24-31.
24. Palloff RM, Pratt K. The excellent online instructor: Strategies for professional development. San Francisco: Jossey-Bass; c2011.
25. Palloff RM, Pratt K. Lessons from the virtual classroom: The realities of online teaching. Oxford: John Wiley & Sons; c2013.
26. Ragan LC. 10 principles of effective online teaching best practices in distance education. Magna Publication, Inc.; c2015.
27. Richardson JC, Koehler AA, Besser ED, Caskurlu S, Lim J, Mueller CM. Conceptualizing and investigating instructor presence in online learning environments. The International Review of Research in Open and Distributed Learning; 2015:16(3).
28. Scobey D. A Copernican Moment: On the Revolutions in Higher Education. In: Harward DW, editor. Transforming Undergraduate Education: Theory That Compels and Practices That Succeed. Lanham: Rowman; 2012:37-50.
29. Simsek I, Kucuk S, Biber SK, Can T. Development of an Online Teaching Competency Scale for University Instructors. Open Praxis. 2021;13(2):201-212. doi:10.5944/openpraxis.13.2.112
30. Swan K. Virtual interaction: Design factors affecting student satisfaction and perceived learning in asynchronous online courses. Distance Education. 2001;22(2):306-331.
31. UNESCO. Education: From disruption to recovery. UNESCO; c2020. https://en.unesco.org/covid19/educationresponse
32. Vikas S, Mathur A. An empirical study of student perception towards pedagogy, teaching style and effectiveness of online classes. Education and Information Technologies; c2021. doi:10.1007/s10639-021-10793-9
33. National Open University of Nigeria. NOUN Student Login Portal (NOUN Studware). www.nouonline.net.
34. Yarhere IE, Obuzor IO, Fomsi E. Online Learning Using Google Classroom: Undergraduate Medical Students and Paediatric Residents Perspectives in the University of Port Harcourt, Nigeria. International Journal of Tropical Disease & Health. 2020;41(18):8-15.