



## Perception of students' on the use of digital platforms for learning in a pandemic era in universities in Rivers State

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### Abstract

The study investigated on perception of students' on the use of digital platform for learning in pandemic era in universities in rivers state. Two objectives, two research questions and two hypotheses guided the study using descriptive survey design. The population of the study was eight thousand seven hundred and sixty one (8,761) students in the Faculty of Education in three public universities in Rivers State. The sample size was six hundred twenty seven (627) respondents, drawn through multistage sampling technique. Perception of students' on the use of digital platform Questionnaire (PSOUDPQ) was used for data collection. Face and content validities were ensured by experts in measurement and evaluation. Reliability coefficient of (0.730) was established using Pearson Product Moment Correlation. Mean and Standard deviation were used to answer the research questions, while Analysis of Variance (ANOVA) was used to test for null hypotheses at 0.05 level of significance. Findings revealed that students have moderate level of perception of Zoom platform and also, students have moderate level of Google classroom. Thus, it was recommended that there should be regular workshops on the importance of zoom platform and Google classroom. Also, institutions should provide free internet services to students and lecturers to enable them assess zoom and Google classroom when need be.

**Keywords:** perception, digital classroom, students', pandemic era

### Introduction

The transition from in-person classroom interaction to online learning outside of the classroom has altered how teachers and students approach teaching and learning activities in the wake of the global Covid-19 outbreak. In contrast to traditional brick classrooms, where students and teachers must physically be present at a designated location, venue, and time, the online classroom enables students to study independently, at their own speed, while using generated and uploaded course materials. This technologically advanced classroom promotes self-directed and self-regulated learning (Engelbrecht, Llinares and Borba, 2020) <sup>[1]</sup>. The worldwide school closings that followed the unanticipated outbreak of the covid-19 virus show how commonplace digital classrooms are in wealthier places.

Most institutions in industrialized nations were able to transition to digital or online learning classrooms when there was an urgent drive to go to online learning. On the other hand, institutions in rising African nations like Nigeria have long had access to the conventional face-to-face classroom. Students struggle to adapt to the digital classroom as a result. Like other governments throughout the world, the government of Nigeria has adopted this digital classroom. This led to the adoption of digital classrooms like Google Classroom, Zoom, Whatsapp, Telegram, Classmates, etc. The Zoom platform and Google Classroom were the main topics of this piece, though. An online learning environment called Google Classroom exists. It focuses on personalizing learning rather than controlling students' educational experiences. But the Zoom

and Google Classroom applications are the main focus of this investigation.

With the help of Google Classroom, teachers and students can collaborate online. With the use of a collection of online tools called Google Classroom, teachers can make assignments, collect student work, grade papers, and then return the results to the students. Google Classroom may be used as both an asynchronous and synchronous system since it allows students without devices or networks to access learning resources from anywhere at any time. There is no requirement that teachers and pupils communicate at the same time. On the other hand, the Zoom platform provides a web-based setting where teachers and students can effortlessly collaborate. Webinars, conferences, and virtual classrooms are all common uses for Zoom Meeting. Guzachchova (2020) <sup>[2]</sup> asserts that training programs for the following generations can be conducted using the Zoom learning management system. Because they enable more flexibility in teaching methods, content management, synchronous and asynchronous communication between teachers and students, and course organization and structure, the use of digital classrooms during the epidemic is justified. The public has, however, expressed a variety of opinions about this new method of learning, and one of the issues raised is whether or not students' views of these virtual classrooms are accurate. A person's perception is how they interpret a circumstance, a procedure, an idea, or a tool. Humans use their senses to observe the world, then they act and think to make sense of what they have seen. The senses record every experience, which is then stored in the mind and expressed as a belief about something. It is

believed that perception originates from mental or physical activity. How we interpret human activity is influenced by sensory, motor, and affective processes. Susila, Qosim, and Rositasari (2020) [9] claim that perception is a human construct based on one's own experiences that is expressed as an idea or action. This discussion will center on students' perspectives, particularly as they apply to their academic pursuits. A man judges others or things in this way according to his knowledge. The three main parts of a student's perception are selection, preparation, and interpretation. Perception is the term used to describe how our brain uses all of its senses to consciously receive, choose, process, and interpret information. Kamaruzaman and Sulaiman (2021) [5] Perception is a term that has been used occasionally. The five senses that make up perception are touch, hearing, smell, taste, and sight. It is a collection of senses that you can use to recognize changes in the way your body moves and how it is posed. Additionally, it consists of the mental operations required for data processing. One of these changes can be the shift from a traditional to a digital classroom. The perceptual process is a series of steps that begins with the environment and concludes with our perception of a stimulus and our reaction to it. Poor views among students may prohibit them from effectively utilizing and collaborating with the course material, as well as with their peers and lecturers. The issue of students' understanding and awareness of online learning is therefore the main area of concern. It is crucial to take into account how pupils view the digital classroom as a result.

In their 2020 study, Hassan, Ariffin, and Ahmad looked at how much students perceived using Zoom Meet webinars during COVID-19. 35 Technical and Vocational Education students who used Zoom meet webinars in T&L activities made up the sample size for this study. Before being employed in this study, the questionnaire was modified from one from a prior investigation and received expert approval. In this study, the data are analyzed using inference and descriptive statistics. The study's findings indicate that students had a moderately positive opinion of using Zoom Meet webinars during COVID-19, with a perception score of 3.39. The Pearson correlation test was found to have a significant value of 0.000. Knowledge and attitude regarding the use of Zoom Meet webinars are hence related.

The adoption of the ZOOM application to promote online learning is examined by Nuraziza, Oktaviani, and Sari (2021) [6] who also look into how this application changes the face of the educational sector. This study used a qualitative methodology. Surveys and interviews were used to collect the data. The research revealed certain perceptions regarding the use of Zoom to promote online learning. The majority of students agreed that e-learning implementation needed to be continually improved. Surprisingly, it contributed significantly to the teaching and learning process, particularly during COVID-19.

During the Covid-19 pandemic, Rahman, Zainal, and Asrijal (2021) [7] looked at how students felt about the use of Google Classroom for online learning. This study had a total sample size of 147 students and used descriptive quantitative methodologies. In order to collect the data for this study, a questionnaire was used. We used descriptive statistics to examine the data. The findings showed that 61.90 percent of students responded less agree with the ease of accessing the Google Classroom application, 72.10

percent of students responded strongly agree if they can master the learning material well and easily through the Google Classroom application, 44.90 percent of students responded agreed that this application is effective to use in the process of online learning, and 47.60 percent of students responded agreed with the use of the Google Classroom application. Overall, 50.34% of students agreed, 44.22% strongly agreed, 4.76% disagreed, and 0.68% seriously disagreed. According to the survey, students had positive and favorable opinions about using Google Classroom for online learning.

The usage of Google Classroom as a learning tool was examined by Harjanto and Sumarni in 2021. Interviews are conducted as part of a qualitative research design. Participants included seven high school teachers in Tangerang Selatan, Indonesia, who have used Google Classroom actively for at least a year in their instruction. According to research, teachers utilize it as a facilitation tool to manage students' assignments, set up the classroom, and accommodate student engagement. Teachers said that using Google Classroom to run their virtual classroom was very beneficial in general.

### Statement of the Problem

When the pandemic started, it disrupted every social gathering and academic endeavor. In order to restore disrupted educational operations, the Federal Government of Nigeria mandated the use of digital platforms in all schools. The Google Classroom, Zoom platform, Whatsapp, Telegram, Classmates, and Edmodo, to mention a few, are just a few examples of the digital classrooms that have been used in schools. But without carefully considering how students felt about the digital platforms, this order was implemented. This led to several problems, including a lack of technological skills, little to no expertise with online teaching and learning tools, and restricted access to learning instructors and resources.

### Aim and objectives of the study

The aim of this study is to investigate the perception of students' on the use of digital platform for learning in pandemic era in universities in rivers state.

The study seeks to:

1. Ascertain students' perception level of using Zoom platform for learning in COVID-19 era in Universities in Rivers State
2. Determine students perception level of Google classroom for learning in COVID-19 era in Universities in Rivers State

### Research questions

The following research questions are intended to guide the study

1. What difference exists in the level of students' perception of Zoom platform for learning in COVID-19 era in universities in Rivers State?
2. What difference exists in the level of student's perception of Google classroom for learning in COVID-19 era in universities in Rivers State?

### Hypotheses

The following null hypotheses will guide this study

1. There is no significant difference on students' perception level of Zoom platform for learning across the three universities in Rivers State.

2. Students perception level of Google classroom for learning in the three universities does not differ significantly

2. Section A gathered demographic information of respondents while section 2 contained items relating to perception. Section 2 comprised of two clusters; representing the two objectives of the study. The first clusters measured the perception level of zoom application (ALZA), the second cluster measured the perception level of Google classroom (ALGC). The response of these clusters were rated on a five-point scaled as Very High Level (VHL) - 5, High Level (HL) - 4, Moderate (ML) - 3, Low Level (LL) - 2 and Very Low Level (VLL) - 1, with a mean criterion of 3.0 respectively.

**Methodology**

The research was done in Rivers State of Nigeria. Descriptive research design was adopted for this study. The population of the study was eight thousand seven hundred and sixty one (8,761) students in the Faculty of Education in three public universities in Rivers State. The sample size was six hundred twenty seven (627) respondents, drawn through multistage sampling technique. Perception of students’ on the use of digital platform Questionnaire (PSOUDPQ) was used for data collection. Face and content validities were ensured by experts in measurement and evaluation. Reliability coefficient of 0.730 was established using Pearson Product Moment Correlation. The questionnaire is made up 48 items, including sections 1 and

**Data analysis**

**Research question one**

What difference exists in the level of students’ perception of Zoom platform for learning in COVID-19 era in universities in Rivers State?

**Table 1:** mean and standard deviation on the difference in student’s perception of zoom platform in covid-19 era in universities in rivers state.

S/N	Item	Respondents ( n = 627)							Remark
		VHL	HL	M	LL	VLL	Mean	SD	
1	The activities during Zoom sessions motivated me to learn the content knowledge more than the ones in the face-to-face traditional class meetings.	145	142	204	96	39	3.412	1.178	ML
2	I participate more in the Zoom sessions than I do in the traditional face-to-face class meetings.	115	160	179	117	56	3.257	1.212	ML
3	I feel comfortable using Zoom for learning, because I learn with ease.	134	178	177	96	42	3.424	1.176	ML
4	The use of Zoom platform allows for easy videoconferencing with people around the world.	207	215	143	45	17	3.877	1.037	ML
5	The use of Zoom allows for flexibility in my learning schedule.	143	218	180	64	22	3.632	1.051	ML
6	The use of Zoom improves my learning in the class.	117	169	211	88	42	3.368	1.136	ML
7	The use of Zoom helps me learn the class content effectively.	119	164	204	99	41	3.352	1.148	ML
8	The use of Zoom helps me develop confidence in the subject area.	107	156	207	108	49	3.262	1.162	ML
Grand Mean							3.45		

Criterion mean = 3.00(mean < 3.00=low level, =3.00=moderate, mean > 3.00 = high level)

Table 1 presents the responses obtained from the level of students’ perception of Zoom plat form for learning in COVID-19 era in universities in Rivers State. The table shows that students responded Moderate Level (HL) to items (1) to (8) respectively. This means that students have moderate level of perception of Zoom application in COVID-19 era in universities in Rivers State.

**Hypothesis one**

There is no significant difference on students’ perception level of Zoom platform across the three universities in Rivers State.

**Table 2:** Summary of Analysis of variance (ANOVA) on students’ perception level of Zoom platform across the three universities in Rivers State.

PLZATOT					
	sum of squares	D f	Mean square	f	sig.
Between Groups	605.657	2	302.828	5.825	.003
Within Groups	32439.185	624	51.986		
Total	33044.842	626			

Table 2 reveals that the sums of squares are 605.657 and 32439.185 while the mean squares are 302.828 and 51.986, with degrees of freedom of 2 and 624, the F ratio value of 5.825 shows that there was a significant difference in students’ perception level of Zoom platform across the three universities in Rivers State. (df, 624 = 5.825, P < 0.05).

Hence, the null hypothesis three is rejected at 0.05 level of significance.

**Research question two**

What difference exists in the level of student’s perception of Google classroom in COVID-19 era in universities in Rivers State?

**Table 3:** Mean and standard deviation on the difference in student’s perception of Google classroom in covid-19 era in Universities in Rivers State.

S.N.	Item	Respondents ( n = 627)							
		VHL	HL	M	LL	VLL	Mean	SD	Remark
9	Dealing with the Google Classroom application is convenient with regard to keeping track of my learning.	173	187	186	64	17	3.694	1.064	ML
10	Reading course materials at home via Google Classroom helps me to be well prepared.	129	213	189	72	24	3.560	1.058	ML
11	The attached course materials were easy to access on Google Classroom.	177	186	170	69	25	3.671	1.117	ML
12	I like taking lectures through Google Classroom.	106	176	189	111	45	3.298	1.155	ML
13	I find it motivating in using Google Classroom for learning.	105	162	195	110	55	3.242	1.182	ML
14	I find Google Classroom helpful in my commitment to my studies.	108	167	188	101	63	3.249	1.208	ML
15	Google Classroom is helpful for increasing my writing skills.	92	139	186	128	82	3.049	1.239	ML
16	I feel positive about the subject area when using Google Classroom.	104	167	197	106	53	3.260	1.171	ML
	Grand Mean							3.38	

Criterion mean = 3.00(mean< 3.00=low level, =3.00=moderate, mean > 3.00 = high level)

Table 3 presents the responses obtained from the level of students’ perception of Google classroom in COVID-19 era in universities in Rivers State. Consequently, students responded Moderate Level (ML) to items (9) to (16) respectively. Hence, students have moderate level of

perception of Google classroom in COVID-19 era in universities in Rivers State.

**Hypothesis two**

Student’s perception level of Google classroom in the three universities does not differ significantl

**Table 4:** Summary of Analysis of variance (ANOVA) on student’s perception level of Google classroom in COVID-19 era in Universities in Rivers State

PLGCTOT					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1340.674	2	670.337	12.084	.000
Within Groups	34614.325	624	55.472		
Total	35954.998	626			

Table 4 reveals that the sums of squares are 1340.674 and 34614.325while the mean squares are 670.337and 55.472, with degrees of freedom of 2 and 624, the F ratio value of 12.084 shows that there was a significant difference in student’s perception level of Google classroom in COVID-19 era in Universities in Rivers State. (df, 624 = 12.084, P < 0.05). Therefore, the null hypothesis four is rejected at 0.05 level of significance.

**Discussion of findings**

The study investigated on the perception of students’ on the use of digital platform for learning in pandemic era in universities in rivers state. From the data collected, and analysis carried out, the findings in table 1 Shows that students have moderate level of perception of Zoom application in COVID-19 era in universities in Rivers State. Furthermore, the result of table 2 shows that there is a significant difference in students’ perception level of Zoom application in COVID-19 era in Rivers State Universities. These findings are in agreement with the study conducted by Hassan, Ariffin and Ahmad (2020), they found that the level of students' perception of the using of zoom meet webinar during covid-19 is 3.39 which is at a moderate level. However, the Pearson correlation test found that the significant value was .000. Therefore, there is a relationship between knowledge and attitude towards the use of zoom meet webinars.

Table 3 Shows that students have moderate level of perception of Google classroom for learning in COVID-19 era in universities in Rivers State. Furthermore, the result of table 4 shows that there is a significant difference in students’ perception level of Google classroom for learning in COVID-19 era in Rivers State Universities. These

findings are in agreement with the study conducted by Rahman, Zainal and Asrijal (2021) [7], reported that 61.90% of students responded less agree with the ease of accessing the Google classroom application, while 72.10% of students responded strongly agree if they can master the learning material well and easily through the google classroom application. Hence, there is a positive response from students’ perception of using Google Classroom application in online learning.

**Conclusion**

The epidemic interfered with all social interactions, including educational activity. The government, however, ordered that all educational activities be carried out online as quickly as possible in order to guarantee that education is provided continuously. Due to the implementation of a digital classroom approach, students' perceptions have been made public. In the pandemic era, recurrent motifs in the research led to findings of a limited degree of perception for digital classrooms. The high cost of data, the unreliable power supply, the unreliable internet, the lack of access to online library resources, and the restricted computer access are other issues that are of concern.

**Recommendations**

1. There should be regular workshops should be organized for students on the importance of Zoom platform and Google classroom
2. Institutions should provide free internet service to students and lecturers to enable them assess Zoom and Google classroom when need be
3. Government as a matter of urgency should implement the ICT policy in education to enable a smooth run of online learning.

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