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## Influence of Online and Physical Classrooms on Students Academic Performance

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### ABSTRACT

This study investigated the influence of online and physical classrooms on student academic performance. The descriptive research of the survey type was employed for the target population for the study consisting of 200 students in five randomly selected faculties at the University of Ilorin, Nigeria. The findings of this study were that both online and physical learning positively influenced students' academic performance; students faced challenges while learning both physically and virtually; students engaged online performed better than those engaged physically with a mean difference of 2.38; there was a significant difference between the academic performance of students taught in an online classroom based on faculty; and there was no significant difference between the academic performance of students taught in an online class based on gender. It was concluded that physical and online education have many things in common. Students must still turn in assignments, participate in class, understand the content, and finish group projects. Teachers still need to create lesson plans, improve the quality of their teaching, respond to students' queries in class, encourage learning, and grade assignments.

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## 1. INTRODUCTION

The world has experienced a change in paradigm in the context of information technology as many people, especially students in higher education, depend on computers and the internet to learn adequately. In a similar vein, the majority of institutions of higher learning are increasingly aware that network technology may be used to develop, foster, deliver, and facilitate learning as well as improve students' experiences and knowledge. Technologies are evolving rapidly, so there is no point in ignoring the opportunities for rapid. So, the rapid developments and growth of information and communication technology have had a profound influence on higher education (Yakubu & Dasuki, 2020). That is called online learning, which here means that teachers and students perform course tasks through the Internet, a way different from the traditional classroom (Aziz *et al.*, 2019). To find ways to enhance student's learning experiences and to offer a better learning context in higher education, it is crucial to investigate the circumstances and characteristics related to online learning (Vezne, 2023). Online learning has recently grown in importance and acceptance among educational institutions all over the world as a result of the expansion of Internet technology. Online instruction is becoming a common practice around the globe and is more common in advanced countries (Sofi-Karim, 2023). Many terms had been used to describe instruction delivered online or via the internet, ranging from distance education, computerized electronic learning, E-learning, internet learning, and many others (Odegbesan *et al.*, 2019). For instance, it has been defined by Ramane *et al.* (2021) as a type or system of learning which utilize electronic technologies to access educational curriculum outside traditional classrooms. Tugwell and Maduabuchukwu (2020) defined online learning as a method of teaching and learning that fully or partially signifies the educational model used, based on the use of electronic media and devices as tools for enhancing the availability of training, communication, and interaction that helps in accepting novel ways of comprehending and establishing learning. Many obstacles to online distance learning may be solved with artificial intelligence, which can also be useful for improving teaching and learning procedures (Dogan *et al.*, 2023).

Simply, online learning courses are specifically delivered via the Internet to somewhere other than the classroom for enhancing or supporting learning. This means online learning is the use of network technologies to create, foster, deliver, and facilitate learning, anytime and anywhere for empowering the individual learner so that the teacher/ trainer/tutor is no longer the gatekeeper of knowledge, while the role of teachers is likely viewed as facilitators of knowledge process (Ngumbi, 2021). Online learning as a unifying term used to describe the fields of online learning, web-based training, and technology-delivered instructions. Kuliya and Usman (2021) pointed out that online learning has been described in various ways as learning that is using many different technologies and methods for delivery e.g., Computer-based training (CBT), Internet-based training (IBT), Web-based instruction (WBI), Advanced distributed learning (ADL), Distributed learning (DL) Distance learning or Mobile learning and so on (Onasanya *et al.*, 2014). Learning may take place through different platforms of social media, internet-based tools and services that enable learners to collaborate, with one another, generate content, gather and disseminate information online. Online learning has increased the accessibility of courses, course material, and other relevant information, online learning enables experts in different fields to provide their services across boards which relates to reaching the audience from a wide geographical area. Onasanya *et al.* (2021) concluded that lecturers in the online learning environment should be encouraged to use the

Class Marker as a tool for assessment because it has a significant impact on the performance of the students.

Traditional classroom instruction is defined as the instructor passing along knowledge or information to the pupil or student. Students are expected to listen, take notes, memorize, and be able to demonstrate their knowledge by filling in the appropriate blanks or selecting the appropriate alternative on the test in this situation because the teacher prepares the lesson to be taken (Kaur *et al.*, 2020). According to this perspective, knowledge is a set of beliefs that perfectly reflect reality. Clear and explicit communication of these principles is prioritized in the classroom. Therefore, interactions between teachers and students are seldom actually started by the latter (Patil, 2020).

The instructor not only knows all the solutions but also all the pertinent queries. Before contributing or asking questions for which the instructor may provide specific, definite responses, students are first assumed to be in the dark (Soyemi *et al.*, 2012). As a result, some pupils could grow discouraged and underperform academically. Although online learning offers self-directed activities, written lectures, and course books, traditional classroom instruction gives students the opportunity for hands-on, structured learning. This allows students to address any difficulties or areas of confusion right away (Kuliya & Usman, 2021). However, the COVID-19 pandemic's rise has made online learning a necessary option for overhauling the whole old educational system. Both teachers and students needed to modify their instructional behaviors, teaching/learning methodologies, and other aspects of their learning processes. While this reform has had a number of positive effects, undergraduates at higher institutions are divided over whether online learning is truly superior to traditional classroom instruction (Wellington & Clarence, 2021).

For a long time, some academics have concentrated on the advantages of online learning over traditional classroom instruction and everything that it entails (Yakubu & Dasuki, 2020). The differences between online learning and classroom learning, as well as the advantages and disadvantages of each, students' attitudes toward one form or the other, their emotions whether positive or negative, and their sense of belonging, to name just a few have all been examined by experts in education and technology.

For instance, Gherheş *et al.* (2021) note that online learning is more student-centered than classroom learning, which is more teacher-centered because it does not only rely on instructions and recommendations coming from teachers but is individually customizable to the learner. The primary informational sources, as well as the assessment and quality of learning, have all been compared between online and classroom learning (Onasanya *et al.*, 2013; Alsaaty *et al.*, 2016). Online learning differs from classroom learning in that students' evaluations can be carried out using tools, they can access information from various documents uploaded onto the platforms, and the quality of learning is strongly influenced by both the teachers' level of digital training and their teaching style. In contrast, in a classroom setting, students are evaluated exclusively by teachers, who serve as their main source of information, and the quality of learning is strongly dependent on them (Wellington & Clarence, 2021).

It is essential to evaluate students' attitudes depending on their gender about the validity of online learning over classroom teaching for online learning in higher education to flourish. (Gambari & Yusuf, 2017). Gender refers to the socially created characteristics of males, women, girls, and boys. This involves social interactions as well as the norms, behaviors, and duties associated with being a woman, man, boy, or girl. A social construct called gender can change through time and varies from culture to culture. Gender describes a people biologically established male or female features. In a similar line, gender also alludes to the

social distinctions and relationships that are learned between men and women. According to [Leaper and Starr \(2019\)](#), there are gender-specific behavior patterns that might result in the exclusion of women from online learning. Others contend that online education favors women in particular due to its flexible and participatory learning method. Nevertheless, neither technology nor gender roles can be viewed as being fixed categories. Men and women exhibit different levels of fear, acceptance, and interest in new technologies over time, according to the research ([McCoy & Heafner, 2004](#)), and the gender gap is closing with time ([Shaw & Gant, 2002](#)). Despite this, women like using computers for social media communication, at least from their perspective ([Onasanya et al., 2017](#)).

While conventional classroom learning has its own established advantages in the sense that it enables students to get the opportunity for hands-on, structured learning instead of being presented with the course books, written lectures, and self-directed activities online learning provides, also allowing learners to address any difficulties or areas of confusion immediately. Yet, the emergence of the COVID-19 pandemic has turned online learning into an indispensable alternative for reforming the entire traditional education system. Both teachers and students have had to change their instructional behaviors, teaching/learning styles, assessment methods, and so forth. This reform has brought about several benefits but has also brought about mixed feelings among undergraduates in tertiary institutions regarding the credibility of online learning over conventional classroom learning ([Kuliya & Usman, 2021](#); [Yakubu & Dasuki, 2020](#)).

There have been empirical studies on the dichotomy between the online mode of delivering instruction over the traditional classroom instructional delivery method among researchers. For instance, the study of [Soyemi et al. \(2012\)](#) explores the potential of self-paced e-learning alongside conventional classroom learning and the positive impact the integration of the two can have on students' academic performance when incorporated into the Nigerian educational system. Online learning supports learning by making teaching and learning fun for teachers and students, students can interact with other students all over the world ([Asuqua et al., 2022](#)).

Similarly, the study of [Gambari and Yusuf \(2017\)](#) investigated the effectiveness of blended learning and E-learning modes of instruction on the performance of undergraduates in Kwara State, Nigeria. The need to understand undergraduate experiences with both traditional classroom learning and online learning prompted the need to investigate the validity of online learning over classroom learning; thus, this stands to be the research gap that this aims to close.

The research questions are the following:

- (i) What is the influence of online learning on student's academic performance at the University of Ilorin?
- (ii) What is the influence of physical classrooms on students' academic performance at the University of Ilorin?
- (iii) What are the challenges facing the online classroom at the University of Ilorin?
- (iv) What are the challenges facing the physical classroom at the University of Ilorin?
- (v) What is the difference between the academic performance of students in online and physical classroom learning?

The following null hypotheses were tested to guide the study:

- (i) Ho1: There is no significant difference between the academic performance of students taught in an online classroom based on faculties.
- (ii) Ho2: There is no significant difference between the academic performance of students taught in an online classroom based on gender.

## 2. METHODS

The study adopted a quantitative research design of a survey type. This design is found appropriate because it is a scientific method that involves observing and describing the behavior of the subject without influencing it in any way. Also, this design gives a clear definition of the problem and the collection of relevant and accurate data. This design, therefore, was used to gather information and collect data from the respondents through the use of a researcher-designed questionnaire. The population for this study consisted of all students at the University of Ilorin Nigeria. The target population for the study consisted of students in five randomly selected faculties. From the sample area of the study, a proportionate sampling technique was used to select the sample from each of the selected faculty in the university. Simple random sampling techniques were used to draw the actual sample size. 200 students formed the sample size of the study (see **Table 1**).

**Table 1.** List of selected faculties at the university of Ilorin, population of students, and the sample size.

S/N	Faculties	Population	Samples	Percentage%
1	Agric	5128	42	21.21%
2	Social science	1164	10	4.79%
3	Education	10896	90	44.89%
4	Engineering	3419	28	14.0%
5	Life science	3665	30	15.0%
	Total	21,510	200	100.0

From the selected faculties, a simple random sampling technique was used to select students that participate in the study, this allows the respondents to have an equal chance of being selected. A researcher-designed questionnaire titled "The Influence of Online and physical class on student academic performance at the University of Ilorin" was used for this study, it contained five (5) sections. Section A had demographic information such as students' faculty and gender, Section B had items seeking information on the influence of online classes on student academic performance, Section C is made up of items seeking information on the influence of physical class on student academic performance, Section D is made up of items seeking information on the challenges facing online class in higher institution, Section E is made up of items seeking information on the challenges facing physical class in higher institution. The questionnaire items will be rated on the response made by: SA (Strongly agree), A (Agree), D (disagree), and SD (strongly disagree). The data obtained from the respondents will be analyzed using descriptive and inferential statistics. Frequency, percentage, mean, and standard deviation will be used to answer the research questions, PPMC will be used to test hypothesis one, ANOVA will be used to test hypothesis two and t-test will be used to test hypothesis three. All the hypotheses formulated will be tested at a 0.05 level of significance using the statistical package for social sciences (SPSS) software version 23.0.

## 3. RESULTS AND DISCUSSION

This chapter presents the demographic information of the respondents used for this study. It also presents answers to the research questions and the result of the hypotheses that were formulated. The chapter equally presents the summary of the findings that are generated based on answers to the research questions and the result of the tested hypotheses.

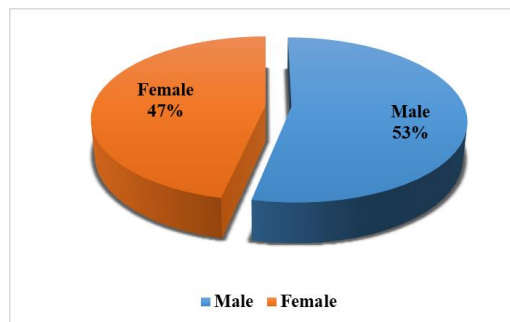
### 3.1. Data Analysis: Demographic Information of the Respondent

**Table 2** shows that the total number of Students that participated in this study was 200. Out of these 200 Students, 107(53.5%) were male while 93(46.5%) were female. The result from this table shows that male Students participated more than female Students in the study. The **Figure 1** further presents the distribution in the pie chart.

**Table 3** shows the distribution of the respondents across the sampled faculties. The total number of undergraduates that participated in this study was 200 of which Agriculture 43(21.5%), Environmental 9(4.5%), Education 90(45.0%), Engineering 28(14.0), and Life Science 30(15.0%) respectively. The **Figure 2** shows distribution of the participants based on area of specialization.

**Table 2.** Distribution of the participants based on gender.

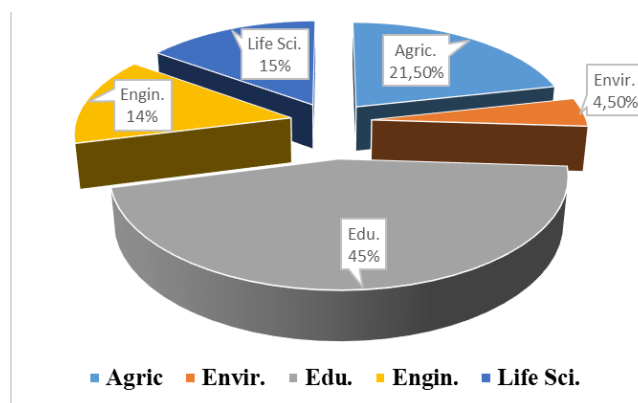
Gender	Frequency	Percentage	Cumulative
Male	107	53.5	53.5
Female	93	46.5	100.0
<b>Total</b>	<b>200</b>	<b>100.0</b>	



**Figure 1.** Distribution of the participants based on gender.

**Table 3.** Distribution of the participants based on area of specialization.

Specialization	Frequency	Percentage	Cumulative
Agriculture	43	21.5	21.5
Environmental	9	4.5	26.0
Education	90	45.0	71.0
Engineering	28	14.0	85.0
Life Science	30	15.0	100.0
<b>Total</b>	<b>200</b>	<b>100.0</b>	



**Figure 2.** Distribution of the participants based on area of specialization.

### 3.2. Research Question One: What is the Influence of Online Learning on Student's Academic Performance at the University of Ilorin?

**Table 4** shows the influence of online learning on student's academic performance at the University of Ilorin. It was revealed from **Table 4** that all the items received a means score that is above the benchmark of 2.45 with "Learning in online class helps me to be able to manage my study time" having the highest score of  $\bar{x} = 3.59$  and "I experienced no technical problems when taught in online class which has helped me perform effectively well in my academics" with the lowest score of  $\bar{x} = 2.48$ . Based on the value of the Grand Mean (3.17 out of 4.00 maximum value obtainable) which falls within the decision value of **positive**, it can be inferred that the influence of online learning on students' academic performance at the University of Ilorin is positive. Therefore, online learning positively influenced students' academic performance at the University of Ilorin.

**Table 4.** Frequency and mean score showing the influence of online classroom on students' academic performance at the University of Ilorin.

S/N	Item	SA	A	D	SD	Mean
1.	Online learning fosters my understanding which has increased my academic performance	114	50	10	22	3.32
2.	I performed better in my academics when I'm being taught in the online class	42	117	15	26	2.88
3.	Learning in online classes helped me to learn at my own pace	75	90	26	9	3.16
4.	Online class saves time thereby giving me more time to study.	98	61	30	11	3.23
5.	I comprehend very fast when am being taught in an online class	74	84	32	10	3.11
6.	I experienced no technical problems when taught in online classes which has helped me perform effectively well in my academics	39	46	86	29	2.48
7.	The online class promotes personalized learning and better learning experiences	100	64	22	14	3.25
8.	Learning in online classes helps me to be able to manage my study time	142	37	18	3	3.59
9.	The online class helps me to be able to participate well in class by voicing my opinions and thoughts	97	68	28	7	3.28
10.	I was able to experience online classes at work, school, or home because of their flexibility	129	29	33	9	3.39
<b>Grand Mean (X)</b>						<b>3.17</b>

**Key:** SD = Strongly Disagree, D= Disagree, A = Agree, SA = Strongly Agree

**Decision Value:** *Negative*=0.00-2.44, *Positive* = 2.45-4.00

### 3.3. Research Question Two: What is the Influence of Physical Classrooms on Students' Academic Performance at the University of Ilorin

**Table 5** shows the influence of physical classrooms on students' academic performance at the University of Ilorin. It was revealed from **Table 5** that almost all the items on **Table 5** received a means score that is above the benchmark of 2.45 except item 2 which stated "I'm motivated and encouraged during physical class". The remaining 9 items on the table had

mean scores above the benchmark. With “I utilize study materials more during physical class” having the highest score of  $\bar{x} = 3.16$  and “I’m motivated and encouraged during physical class” with the lowest score of  $\bar{x} = 2.29$ . Based on the value of the Grand Mean (2.93 out of 4.00 maximum value obtainable) which falls within the decision value for **positive**, it can be inferred that the influence of physical classroom on students’ academic performance at the University of Ilorin is positive. Therefore, physical classroom learning positively influenced students’ academic performance at the University of Ilorin.

**Table 5.** Frequency and mean score of the influence of physical classroom on students’ academic performance at the University of Ilorin.

S/N	Item	SA	A	D	SD	Mean
1.	I enjoy the physical class because the instructions given do not rely upon network system	52	74	1	73	2.53
2.	I am motivated and encouraged during physical class	35	57	38	70	2.29
3.	I have easy access to study materials during physical class	63	86	39	12	3.00
4.	Being able to socialize with my peers face-to-face has improved my confidence which eventually improved my academic performance	42	131	21	6	3.05
5.	I utilize study materials more during physical class	68	95	37	0	3.16
6.	During physical class, I have supported assistance to be able to maximize classroom performance	68	94	27	11	3.10
7.	The physical class has improved my attitude toward participating in class discussions during lesson periods which has improved my academic performance	72	87	28	13	3.09
8.	I enjoy physical class because there are no technical problems during the class which has increased my academic performance	54	76	59	11	2.87
9.	I communicate better with my peers and lecturers during physical than online classes	73	95	21	11	3.15
10.	During physical class, I was able to have the guidance of lecturers and administrators which has helped me perform better in my academics	66	84	50	0	3.08
<b>Grand Mean (X)</b>						<b>2.93</b>

**Key:** SD = Strongly Disagree, D= Disagree, A = Agree, SA = Strongly Agree

**Decision Value:** *Negative*=0.00-2.44, *Positive* = 2.45-4.00

### 3.4. Research Question Three: What are the Challenges Facing the Online Classroom at the University of Ilorin?

**Table 6** shows the challenges facing online classrooms at the University of Ilorin. It was revealed from **Table 6** that all the items received a means score that is above the benchmark of 2.45 with “Lack of internet connectivity is a major problem of online class” having the highest score of  $\bar{x} = 3.57$  and “I lack comprehension in online class unlike physical class due to lack of immediate feedback” with the lowest score of  $\bar{x} = 2.89$ . Based on the value of the Grand Mean (3.06 out of 4.00 maximum value obtainable) which falls within the decision value for **positive**, it can be inferred that University of Ilorin students are facing different challenges while learning online.



**Table 6.** Frequency and mean score showing the challenges facing the online classroom in the University of Ilorin.

S/N	Item	SA	A	D	SD	Mean
1.	Lack of internet connectivity is a major problem in online class	140	37	20	3	3.57
2.	I lack comprehension in online classes unlike physical classes due to a lack of immediate feedback	48	85	64	3	2.89
3.	There is low interactivity between the teachers and students during online class	66	82	45	7	3.04
4.	I easily lose focus in an online class than in the physical class	47	103	35	15	2.91
5.	It is very hard to communicate and express myself during online class	45	52	85	18	2.62
6.	I received no timely feedback from my lecturers during online class	75	71	34	20	3.01
7.	The instructions always given to me during online classes were not clear	94	63	32	11	3.20
8.	Technology skills were needed while learning during online class	42	117	37	4	2.99
9.	It is very difficult to communicate with teachers and peers while learning in an online class	75	85	36	4	3.16
10.	I always feel learning in online classes is teacher-centered	80	79	35	6	3.17
<b>Grand Mean (X)</b>						<b>3.06</b>

**Key:** SD = Strongly Disagree, D= Disagree, A = Agree, SA = Strongly Agree

**Decision Value:** *Negative*=0.00-2.44, *Positive* = 2.45-4.00

### 3.5. Research Question Four: What are the Challenges Facing the Physical Classroom at the University of Ilorin?

**Table 7** shows the challenges facing physical classrooms at the University of Ilorin. It was revealed from **Table 7** that all the items received a means score that is above the benchmark of 2.45 with “It is stressful and tedious when learning in physical class” having the highest score of  $\bar{x} = 3.74$  and “There is not enough time to complete the assignment or classwork given in physical class” with the lowest score of  $\bar{x} = 2.67$ . Based on the value of the Grand Mean (3.16 out of 4.00 maximum value obtainable) which falls within the decision value for *positive*, it can be inferred that the University of Ilorin students are facing different challenges while learning in the physical classroom.

### 3.6. Research Question Five: What is the Difference Between the Academic Performance of Undergraduates in Online and Physical Classroom Learning?

**Table 8**, shows the mean and standard deviation of the performance of the students in both online and physical classrooms. Online performance with a mean score of ( $\bar{x} = 31.67$ ) while physical classroom performance with a mean score of ( $\bar{x} = 29.29$ ). Based on the mean score of each learning mode, it can be inferred that the difference between the performance of students in online and physical classrooms is ( $\bar{x} = 2.38$ ). That is, the mean score of students in an Online class is more than that of their performance in the physical classroom with 2.38. Using percentages to establish the difference between the performance of both groups, online classes performed better than physical classes with a difference of 2% respectively.

**Table 7.** Frequency and mean score showing the challenges facing physical classroom in the University of Ilorin.

S/N	Item	SA	A	D	SD	Mean
1.	It is stressful and tedious when learning in the physical class	155	38	7	0	3.74
2.	There is no easy access to resources used for learning in a physical class	106	66	17	11	3.36
3.	The peer pressure in physical class is too much thereby affecting my class performance	144	50	5	1	3.69
4.	Due to the population in a physical class, I was unable to concentrate well during classes	50	131	18	1	3.15
5.	The physical class has limited the use of technological devices used for learning	61	62	71	6	2.89
6.	Physical class is too costly due to class attendance during each class session	89	90	16	5	3.32
7.	Physical class is not flexible I always have to be present in class to receive lectures	50	102	42	6	2.98
8.	The classroom in which physical class is being held is not large enough	64	74	53	9	2.97
9.	There is not enough time to complete the assignment or classwork given in physical class	37	70	82	11	2.67
10.	There is no effective course delivery in physical classes due to insufficient academic resources	56	55	85	4	2.82
<b>Grand Mean (X)</b>						<b>3.16</b>

**Key:** SD = Strongly Disagree, D= Disagree, A = Agree, SA = Strongly Agree

**Decision Value:** *Negative*=0.00-2.44, *Positive* = 2.45-4.00

**Table 8.** Percentage, mean, and standard deviation showing the difference between the performance of students in online and physical classrooms.

Variable	N	Percentage (%)	Mean	Std. Deviation
Online Classroom	200	52.0%	31.67	5.42
Physical classroom	200	48.0%	29.29	3.77

### 3.7. Hypothesis One: There is No Significant Difference Between the Academic Performance of Students Taught in an Online Classroom Based on Faculties

**Table 9** reveals a significant difference between the academic performance of students taught in an online classroom based on faculties due to  $\{F (10.74) = 13.38, P= 0.000\}$ . The result shows that the p-value of 0.000 is less than the Alpha value of 0.05. Thus, the null hypothesis is rejected. Therefore, there was a significant difference between the academic performance of students taught in an online classroom based on faculty.

**Table 9.** The ANOVA of showing significant difference between the academic performance of students taught in an online classroom based on faculties.

Sources of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	182.63	17	10.74			
Within Groups	146.13	182	0.803	13.38	0.000	Rejected
<b>Total</b>	<b>328.76</b>	<b>199</b>				

### 3.8. Hypothesis Two: There is No Significant Difference Between the Academic Performance of Male and Female Students Taught in an Online Class.

**Table 10** indicates that [df (198),  $t = 0.165$   $P = 0.869$ ]. This means that the null hypothesis was not rejected. This was a result of the t-value of 0.165 resulting in a 0.869 significance value which was greater than 0.05 alpha value. Thus, the stated null hypothesis was established: There is no significant difference between the academic performance of male and female students taught in an online class. Also, the values of the mean scores do not reveal any appreciable difference.

**Table 10.** T-test of the difference between male and female academic performance of students taught in an online class.

Gender	N	X	SD	Df	T	Sig.(2-tailed)	Decision
Male	107	31.73	5.47	198	0.165	0.869	Not Rejected
Female	93	31.60	5.39				
<b>Total</b>	<b>200</b>						

### 3.9. Discussion

The research work was conducted to examine the Influence of online and physical classes on student academic performance at the University of Ilorin. The first finding showed that online learning influenced students' academic performance at the University of Ilorin. The findings affirms that class discussion becomes more successful for the students as they can build up confidence during online class. He further explained that this happens when the shy and less confident ones try to contribute more in discussions and are also brave enough to share their ideas and views. These students will hopefully talk more to more people because it is an easy way to approach other people when others do not have to see them. Another finding showed that physical classroom learning influenced students' academic performance at the University of Ilorin. The findings lend credence to the view of [Malik \(2020\)](#) who observed that campus education that is physical class provides students with both accredited staff and research libraries. Students can rely upon administrators to aid in course selection and provide professorial recommendations. Library technicians can help learners edit their papers, locate valuable study material, and improve study habits. Research libraries may provide materials not accessible by computer. In all, the traditional classroom experience gives students important auxiliary tools to maximize classroom performance.

Findings showed that University of Ilorin students are facing different challenges while learning online. [Gherheş et al. \(2021\)](#) postulated that the main challenges that students encountered during e-learning are accessibility, connectivity, lack of appropriate devices, and social issues represented by a lack of communication and interaction with teachers and peers. Research shows online students are more likely to quit class if they do not like the instructor, the format, or the feedback. Because they work independently, relying almost wholly upon self-motivation and self-direction, online learners may be more inclined to withdraw from class if they do not get immediate results. Again, the finding of this research revealed that University of Ilorin students are facing different challenges while learning physically. The large class sizes, mixed age, and mixed ability classes, undiagnosed student learning disabilities, insufficient funding for classroom supplies and equipment, and lack of administrative support are the challenges facing the use of physical classes; Mixed ability and mixed age classes: classes that include students of varying ages and abilities can create a dynamic learning

community. But these classes can also pose distinct challenges that can derail meaningful learning. In addition, findings also revealed the difference between the performance of students in an online and physical classroom is ( $\bar{x} = 2.38$ ). That is, the mean score of students in an Online class is more than that of their performance in a physical classroom with 2.38. also, there was a significant difference between the academic performance of students taught in an online classroom based on faculties. preferred to use written communication over spoken communication.

#### 4. CONCLUSION

Having examined the Influence of online and physical classes on student academic performance at the University of Ilorin, it was concluded that physical and online education have many things in common. Students must still turn in assignments, participate in class, understand the content, and finish group projects. Teachers still need to create lesson plans, improve the quality of their education, respond to students' queries in class, encourage learning, and grade assignments. The two modalities differ greatly from one another despite their fundamental commonalities. In the past, classroom education has been known to be student-centered and require passive learning, but online teaching is frequently student-centered and demands active learning.

#### 5. ACKNOWLEDGEMENT

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#### 6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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