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Influence Of Online And Physical Classroom On Students Academic Performance In University Of Ilorin, Nigeria

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ABSTRACT

This study investigated the influence of online and physical classroom on student academic performance. The descriptive research of the survey type was employed to achieve the purpose of this study. The target population for the study consisted of students in five randomly selected faculties in University of Ilorin, Nigeria. Proportionate sampling technique was used to select the sample from each of the selected faculties in the University. Simple random sampling techniques were used to draw 200 students who constituted the actual sample size for the study. The data obtained from the respondents were analyzed using descriptive and inferential statistics. Frequency and mean score was used to answer the research questions. ANOVA was used to test hypothesis one while t-test was used to test hypothesis two. The findings of this study were that: both online and physical learning positively influenced students' academic performance; students faced challenges while learning both physical and virtually; students engaged online performed better than those engaged physically with the mean different 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 changed in paradigm in the context of information technology as many people, especially students in higher education, depend on computer and 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 (Turg`unova & Abdurahimovna, 2023). 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 task through internet, a way different with traditional classroom(Aziz et al., 2019). To find ways to enhance students' 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 (Edemoh & Ogedebe, 2019; 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 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 (Owo & Isaac, 2021). 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). Oluwasusi et al. (2021) defined 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 that online learning has been described in various ways as learning that is using a number of different technologies and methods for delivery e.g., Computer based training (CBT), Internetbased 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 (Onasanya, 2019). 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 (Tawafak, et al., 2019). (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. Despite the fact that 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. It was necessary for both teachers and students 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 (Clarence & Wellington, 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; Tawafak, et al., 2019). 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 person's 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 (Ikolo, 2013). 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 (Bruestle et al., 2009). 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).

Statement of the Problem

While the conventional classroom learning has its own established advantages in the sense that it enables students 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 COVID-19 pandemic has turned online learning an indispensable alternative for reforming the entire traditional education system. Both teachers and students have had to change their instructional behaviours, their teaching/learning style, assessment methods, and so forth. This reform has brought about several benefits, but has also brought about mixed feeling among undergraduates in tertiary institutions on the credibility of online learning over the conventional classroom learning (Kuliya & Usman, 2021; Oluwasusi et al., 2021; Yakubu & Dasuki, 2020).

There have been empirical studies on the dichotomy between 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 with conventional classroom learning and the positive impact the integration of the two can have on student's academic performance when incorporated into the Nigeria 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.

Research Questions

- 1. What is the influence of online learning on students' academic performance in university of llorin?
- 2. What is the influence of physical classroom on students' academic performance in university of llorin?
- 3. What are the challenges facing the online classroom in university of Ilorin?
- 4. What are the challenges facing the physical classroom in university of Ilorin?
- 5. What is the difference between the academic performance of students in online and physical classroom learning?

Research Hypotheses

The following null hypotheses was tested to guide the study:

Ho₁: There is no significant difference between the academic performance of students taught in an online classroom based on faculties

Ho₂: There is no significant difference between the academic performance of students taught in an online classroom based on gender.

3. METHODS

The study adopted a quantitative research design of a survey type. This design is found appropriate because it is a scientific method which involves observing and describing the behavior of the subject without influencing it in any way. Also, this design gives clear definition of the problem and 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 in 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, 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. Two hundred (200) students formed the sample size of the study.

Sum of the faculties

Table 1: List of Selected Faculties in 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 |

Source: Academic support services

From the selected faculties, simple random sampling technique was used to select students that participate in the study, this allows the respondents to have equal chance of being selected. A researcher-designed questionnaire titled "the Influence of online and physical class on student academic performance in 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 class 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 of: 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 while t-

test will be used to test hypothesis three. All the hypothesis formulated swill be tested at 0.05 level of significance using statistical package for social sciences (SPSS) software version 23.0.

4. RESULTS AND DISCUSSION

Results

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 was 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.

Data Analysis:

Demographic Information of the Respondent

Table 1: Distribution of the Paticipants Based c

| Gender | Frequency | Percentage | Cumulative |
|--------|-----------|------------|------------|
| Male | 107 | 53.5 | 53.5 |
| Female | 93 | 46.5 | 100.0 |
| Total | 200 | 100.0 | |

Table 1 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 below further presents the distriution in pie chart.

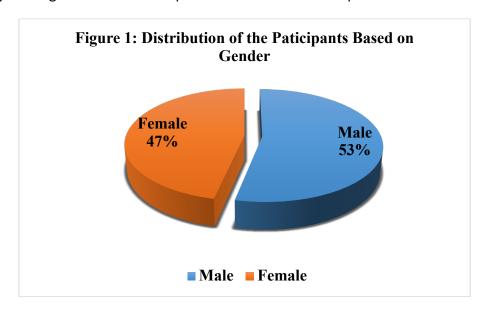
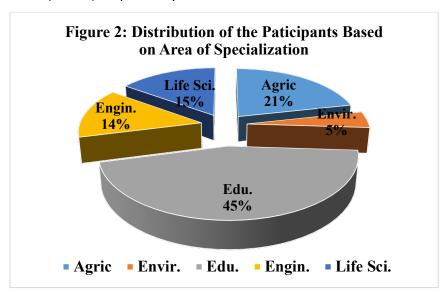


Table 2: Distribution of the Paticipants Based on Area of Specialization

| 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 |
| Total | 200 | 100.0 | |

Table 2 shows the distribution of the respondents across the sampled faculties. The total number of the 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.



Results
Research Question One: What is the influence of online learning on students' academic performance in university of Ilorin.

Table 3. Frequency and Mean Score Showing the Influence of Online Classroom on Students' Academic Performance in University of Ilorin

| S/N | Item | SA | Α | 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 online class | 42 | 117 | 15 | 26 | 2.88 |
| 3. | Learning in online class 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 online class | 74 | 84 | 32 | 10 | 3.11 |
| 6. | I experienced no technical problems when taught in online class which has helped me perform effectively well in my academics | 39 | 46 | 86 | 29 | 2.48 |
| 7. | Online class promotes personalized learning and better learning experiences | 100 | 64 | 22 | 14 | 3.25 |
| 8. | Learning in online class helps me to be able to manage my study time | 142 | 37 | 18 | 3 | 3.59 |

| 9. | 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 class at work, school or home because of it flexibility | 129 | 29 | 33 | 9 | 3.39 |
| | Grand Mean (X) | | | | | 3.17 |

Key: SD = Strongly Disagree, **D**= Disagree, **A** = Agree, **SA** = Strongly Agree **Decision Value:** *Negative*=0.00-2.44, *Positive* = 2.45-4.00

Table 3 shows the influence of online learning on students' academic performance in University of Ilorin. It was revealed from the table 3 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 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 in university of Ilorin is positive. Therefore, online learning positively influenced students' academic performance in University of Ilorin.

Research Question Two: What is the influence of physical classroom on students' academic performance in university of Ilorin

Table 4. Frequency and Mean Score of the Influence of Physical Classroom on Students'

Academic Performance in University of Ilorin

| S/N | Item | SA | Α | D | SD | Mean |
|-----|--|----|-----|----|----|------|
| 1. | I enjoy physical class because instructions given doesn't rely upon network system | 52 | 74 | 1 | 73 | 2.53 |
| 2. | I'm motivated and encouraged during physical class | 35 | 57 | 38 | 70 | 2.29 |
| 3. | I have easy accessibility to study materials during physical class | 63 | 86 | 39 | 12 | 3.00 |
| 4. | Being able to socialize with my peer's 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 the supported assistance to be able to maximize classroom performance | 68 | 94 | 27 | 11 | 3.10 |

| 7. | Physical class has improved my attitude towards 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 class | 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 |
| | Grand Mean (X) | | | | | 2.93 |

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

<u>Decision Value:</u> *Negative=*0.00-2.44, *Positive =* 2.45-4.00

Table 4 shows the influence of physical classroom on students' academic performance in university of Ilorin. It was revealed from the table 4 that almost all the items on table 4 received a means score that is above the benchmark of 2.45 except item 2 that 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 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 in university of Ilorin is positive. Therefore, physical classroom learning positively influenced students' academic performance in University of Ilorin.

Research Question Three: What are the challenges facing the online classroom in university of Ilorin.

Table 5. Frequency and Mean Score Showing the Challenges Facing the Online Classroom in University of Ilorin.

| S/N | ltem | SA | Α | D | SD | Mean |
|-----|--|-----|-----|----|----|------|
| 1. | Lack of internet connectivity is a major problem of online class | 140 | 37 | 20 | 3 | 3.57 |
| 2. | I lack comprehension in online class unlike physical class due to 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 online class than 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 class 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 online class | 75 | 85 | 36 | 4 | 3.16 |
| 10. | I always feel learning in online class is teacher centered | 80 | 79 | 35 | 6 | 3.17 |
| | Grand Mean (X) | | | | | 3.06 |

Key: SD = Strongly Disagree, **D**= Disagree, **A** = Agree, **SA** = Strongly Agree **Decision Value:** *Negative*=0.00-2.44, *Positive* = 2.45-4.00

Table 5 shows the challenges facing online classroom in university of Ilorin. It was revealed from the table 5 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 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.

Research Question Four: What are the challenges facing the physical classroom in university of Ilorin.

Table 6. Frequency and Mean Score Showing the Challenges Facing Physical Classroom in University of Ilorin

| S/N | ltem | SA | Α | D | SD | Mean |
|-----|--|-----|-----|----|----|------|
| 1. | It is stressful and tedious when learning in physical class | 155 | 38 | 7 | 0 | 3.74 |
| 2. | There is no easy access to resources used for learning in 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 physical class I was un able to concentrate well during classes | 50 | 131 | 18 | 1 | 3.15 |
| 5. | 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 sessions | 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 class room 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 class due to insufficient academic resources | 56 | 55 | 85 | 4 | 2.82 |
| | Grand Mean (X) | | | | | 3.16 |

Key: SD = Strongly Disagree, **D**= Disagree, **A** = Agree, **SA** = Strongly Agree **Decision Value:** *Negative*=0.00-2.44, *Positive* = 2.45-4.00

Table 6 shows the challenges facing physical classroom in university of Ilorin. It was revealed from the table 6 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 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 University of Ilorin students are facing different challenges while learning in physical classroom.

Research Question Five: What is the difference between the academic performance of undergraduates in online and physical classroom learning.

Table 7. Percentage, Mean and Standard Deviation Showing the Difference Between the Performance of Students in Online and Physical Classroom

| Variable | N | Percentage (%) | Mean | Std. Deviation |
|--------------------|-----|----------------|--------|----------------|
| Online Classroom | 200 | 52.0% | 31. 67 | 5.42 |
| Physical classroom | 200 | 48.0% | 29.29 | 3.77 |

Table 7, shows the mean and standard deviation of the performance of the students in both online and physical classrooms. Online performance with the mean score of (\bar{x} = 31.67) while physical classroom performance with the 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 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 physical classroom with 2.38. Using percentage to establish the difference between the performance of both groups, online class performed better than physical class with difference of 2% respectively.

Hypotheses Testing

Hypothesis One: There is no 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 | .803 | 13.38 | .000 | Rejected |
| Total | 328.76 | 199 | | | | |

Table 8 reveals significant difference between the academic performance of students taught in an online classroom based on faculties due to $\{F(10.74) = 13.38, P = .000\}$. The result shows that the p value .000 is less than the Alpha value 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.

Hypothesis Two: There is no significant difference between the academic performance of male and female students taught in an online class.

Table 9. t-test of the Difference Between Male and Female Academic Performance of Students Taught in an Online Class

| Gender | N | X | SD | Df | Т | Sig.(2-tailed) | Decision | | |
|------------------------|------------------|-------|------|-----|------|----------------|--------------|--|--|
| Male | 107 | 31.73 | 5.47 | | | | | | |
| | | | | 198 | .165 | .869 | Not rejected | | |
| Female Total | 93 200 | 31.60 | 5.39 | | | | | | |

Table 9 indicates that [df (198), t=.165 P=.869. This means that the null hypothesis was not rejected. This was as a result of the t-value .165 resulting in .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.

Discussion

The research work was conducted to examine the Influence of online and physical class on student academic performance in the University of Ilorin. The first finding showed that online learning influenced students' academic performance in University of Ilorin. The findings agree with Comey (2009) which 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 own ideas and views. These students will hopefully talk more to more people because it is an easy way to approach other people when the others do not have to see them. Another finding showed that physical classroom learning influenced students' academic performance in 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.

Finding 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, social issues represented by 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 selfmotivation 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. Bridget (2018) reported that large class sizes, mixed age and mixed ability classes, undiagnosed student learning disabilities, insufficient funding's for classroom supplies and equipment, lack of administrative support are the challenges facing the use of physical class; 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 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 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.

5. CONCLUSION

Having examined the Influence of online and physical class on student academic performance in 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.

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