



Online Versus Classroom Learning: A case study of Tertiary Institutions in Ondo State

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General Note

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ABSTRACT

This study investigated into Online versus Classroom learning, its effect on academic performance of student in Chemistry. The study was carried out in two selected institutions making use of this pattern of learning, Adeyemi College of Education Ondo and National Open University (NOUN), Akure study centre. The study consisted of one hundred (100) respondents from both institutions; the research questions were formulated and analyzed using Chi-Square analysis method. Analysis of the result revealed that the use of Online in learning of Chemistry do have effect on the academic performance of student in Chemistry since the X^2_{tab} with degree of freedom at 0.05 significant level is 8.34 is less than X^2_{cal} which is 92.31. This makes Online learning more effective if it is used to complement Classroom learning. The study recommends that Chemistry instructors should encourage students to make use of Online learning facilities also; Government should support institutions by providing ICT facilities to improve learning and in-service computer and internet training for instructors so as to increase their skills and competencies in learning and teaching of Chemistry.

Keywords: Online learning, Classroom learning, Chi Square, ICT and Academic Performance.

1. INTRODUCTION

Learning is very crucial for proper development of a child, it is important and paramount to build the cognitive, psychomotor and affective aspect of the learner, but for effective development, it depends on how the child has decided to learn or how he has been learning. In Nigeria education we have adopted Classroom learning (Traditional) as an aspect and part of our way of learning over century but as time goes on, due to western education, modernity and civilization, our communication, information and technological aspect is now gradually developing which is now bringing a lot of renovation into our method of teaching and learning, gradually Online learning is gaining a larger ground in our educational sector.

There are advantages and disadvantages to every methods of learning, it is best to use the advantages. Emphasis will be on Classroom learning and Online learning session. The classroom method of learning that was embraced by our system has some shortcoming then to curb some of its shortcomings solution was provided through the introduction of E-learning method (Online learning).

Having many numerous students learning in the same Classroom has added benefit of allowing students to exchange ideas and questions with one another providing another valuable learning medium that Online cannot replicate. Classroom can be referred to as a firsthand interaction with the educator and also to allows for ideas to be exchange freely and without any communication barrier but with all these and depending on the level of interaction in the Classroom setting. Shy students may not allowed to be active in classes without providing an alternative ways to communicate ideas and forcing students to learn by vocal exchange with educator may limit their learning ability to learn, on the other hand through the introductions of technologies such as portable laptops, smart phones, iPods etc. with an internet facilities, online learning is now gaining more acceptance by the education sector as an acceptable and productive way of obtaining education because it was believed that it is easy to access and it provides a convenient way to obtain course materials and are accessible from a standard internet connection and typically involve average home computer system requirement to facilitate easy information transfer. This method had been detected to provide a means for students to interact with one another while learning a particular subject thus enhancing the overall learning experience but with all these, Online learning has faced much criticism from many sources as they claim it has devalued post-secondary education and will reduce the effectiveness of obtaining quality carrier position by obtaining quality higher education. The truth is that there are advantages and disadvantages to every type of learning environment. It is best to use the advantages that each method offers to their fullest extent. It appears from the initial studies, that a combination of online and classroom learning to convey subject matter to students will be the best teaching method. However, in some instances the inconvenience of maintaining a consistent school schedule prohibits potential students from furthering their education. Learning highly depends on the individual's motivation to learn. So it still comes down to the effort that the students put into their education that ultimately determines how much they will retain and how beneficial the overall experience was to their future, it is therefore pertinent to investigate online versus classroom learning a case study of tertiary institutions in Ondo State.

2. METHOD

Research Design

This study is descriptive research of a survey design. It attempt to look into how convenient and easy is Online learning to Classroom learning and its impact on the academic achievement of student in some selected higher institutions of National Open University of Nigeria, Akure Study Centre, Ondo State and Adeyemi College of Education, Ondo Town, Ondo State.

Research Instrument

Questionnaire instrument of research data collected was adopted for this study. The questionnaire has a general question for both institution and the other based on the mode of learning of the institution. Four rating schools are provided; Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD). This enables the respondent to tick as appropriate according to their own opinions.

Research Hypothesis

The following hypothesis were postulated and tested to direct further study

H_0 There is no significant difference in the academic performance of student using the Online or the Classroom means of learning.

H_1 There is significant difference in the academic performance of students using the Online or the Classroom means of learning.

3. RESULT AND DISCUSSION

Table 1

F_o	F_e	$F_o - F_e$	$(F_o - F_e)^2$	$(F_o - F_e)^2 / f_e$
153	141.00	12	144	1.021
120	141.00	-21	441	3.128
103	141.00	-38	1444	10.241
188	141.00	47	2209	15.667
214	204.50	10	100	0.490
181	204.50	-23.5	552.25	2.700
201	204.50	-3.5	12.25	0.060
222	204.50	17.5	306.25	1.498
56	69.25	-13.25	175.56	2.535
91	69.25	-21.75	473.06	6.831
81	69.25	11.75	138.06	1.994
49	69.25	-20.25	410.06	5.922
77	85.25	-8.25	68.06	0.798
108	85.25	22.75	517.56	6.071
115	85.25	29.75	885.06	10.382
41	85.25	-44.25	1958.06	22.970
				$E(f_o - f_e)^2 / f_e = 92.308$

Decision Rule

From the hypothesis the null hypothesis will be rejected and the alternative hypotheses will be accept since the $X^2_{cal} > X^2_{tab}$. Therefore there is a significant difference in the performance of the student of Chemistry using the Online as a means of learning than ordinary Classroom learning.

4. DISCUSSION OF FINDINGS

Since the X^2_{cal} is $> X^2_{tab}$ i.e. $92.31 > 8.31$, then the null hypothesis will be rejected and the alternative hypothesis is accepted. This research accepted that there is a significant difference in student performance using Online than Classroom learning. This ascertain the fact that Online learning happens to offer the modest advantages over conventional Classroom instruction as stated by US Department of Education (2009).

5. CONCLUSION

From the analysis of data collected and interpretation of the results, the study concluded that the use of Online learning will always have effect on the academic performance of students since $X^2_{cal} > X^2_{tab}$, i.e. $92.31 > 8.31$ Contrary to popular belief, this study has been able to prove that learning from Online is more effective and accurate than Classroom learning and supplementing Classroom learning with Online learning will be of great value to good academic performance.

Recommendation

Based on the finding of this study, the following recommendations were made to improved Online learning and Classroom learning and these recommendations are meant to be used so as to achieve greater impact in both areas of teaching and learning.

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