



## Determinants of Academic Performance of Undergraduate Students of Distance Learning Centre, University of Ibadan

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### ABSTRACT:

The study investigated the determinants of academic performance of undergraduate students of distance learning centre, University of Ibadan, Oyo state, Nigeria. The methods used include descriptive statistics, cross tabulation, correlation analysis, ordinary least square (OLS) regression and probit regression. The result of ordinary least square OLS regression showed that home factor, school factor, work factor and religion factor are the factors that determine the academic performance of University of Ibadan distance learning students but home factor, work factor and religion factor exert a positive significant impact on academic performance of University of Ibadan distance learning students ( $\beta_1 = 0.1473604$ ,  $p = 0.078$ ;  $\beta_3 = 0.1488303$ ,  $p = 0.071$  &  $\beta_4 = 0.2043724$ ,  $p = 0.049$ ) while school factor exert a negative significant impact on University of Ibadan distance learning students ( $\beta_2 = -0.192849$ ,  $p = 0.095$ ). Also, the probit regression result showed that home factor, work factor, religion factor, management factor, peers group factor and caregivers' factor are the factors that determine the academic performance of University of Ibadan distance learning students but work factor, religion factor, management factor and caregivers' factor exert a positive significant impact on academic performance of University of Ibadan distance learning students ( $\beta_3 = 2.0499$ ,  $p = 0.000$ ;  $\beta_4 = 1.1501$ ,  $p = 0.012$ ;  $\beta_5 = 0.5809$ ,  $p = 0.000$  &  $\beta_8 = 2.2194$ ,  $p = 0.000$ ) while home factor and peer group factor exert a negative significant impact on University of Ibadan distance learning students ( $\beta_1 = -1.6998$ ,  $p = 0.000$  &  $\beta_6 = -1.0382$ ,  $p = 0.160$ ). The study recommended that distance learning Centre (DLC) students should not allow their work to intervene with their academic performance. They should create time for both their work and their academic so that both will not affect each other. Students of DLC should not allow their religion to affect their performance in school. Since majority of students under the DLC programme are working class, the management should put this into consideration for their students to perform very well.

KEYWORDS: Academic Performance, DLC, OLS and Probit Regression

### 1. INTRODUCTION :

Distance learning education, structured learning in which the student and instructor are separated by time and place, is currently the fastest growing form of domestic and international

education. Distance learning has been defined as all learning that takes place where there is no face-to-face interaction between students and teachers (Babalola and Babalola, 2014). It suggest an educational approach designed to reach

learners in their homes/offices/shops etc., provide learning resources for them to qualify without attending formal classes in person, or create opportunities for lifelong learning, no matter where or when they want to study (Ojoet *al.*, 2013).

The passing of the Open University bill into law in Nigeria in 1983 marks the beginning of distance learning education in Nigeria. Since then the academic performance of students in distance learning has been deteriorating yearly. The results of distance learning examinations show about 12.2%, 50.7% and 49.9% students scored zero division in the year 2009, 2010 and 2011 respectively (Babalola and Babalola, 2014). The high failure rate has resulted into little number of students continuing advanced level in distance learning education studies. Despite the efforts made by the government and the administration of most school running distance learning and community in expanding distance learning which extended to state level, lowering education expenses to improve the education systems, the academic performance is still poor. The ratio of performance in distance learning has not yielded the desired objectives (Ojoet *al.*, 2013).

Determinants of students' performance in distance learning have received considerable attention in the education literature and continue to be a challenge theme. Student performance in distance learning is generally viewed as product of socio-economic, psychological and environmental factors. Hence, the attempt was made in the literature is to identify the factors that affect students' performance in distance learning. Few studies have investigated the reasons for the poor academic performance of distance learning such as Olson (2005); Welsh, (2007); Jones (2009); Ojoet *al.*, (2013); Nyandwi (2014). Their findings identify students' effort, previous schooling, parents' education, family income, self-motivation, age of student, learning preferences, class attendance and

entry qualifications as factors that have a significant effect on the students' academic performance in various settings. These studies were conducted in places with differences in social settings and geographic location district. The utility of these studies lies in the need to undertake corrective measures that improve the academic performance of students, especially in distance learning. This study therefore, will assess factors influencing the academic performance of the distance learning students in University of Ibadan. Also the past studies utilized human capital theory, investment theory and rational theory while this study employed Bronfenbrenner's ecological theory to make it different from the previous study in this area.

## 2. LITERATURE REVIEW:

### 2.1 *Stylized Fact about Distance Learning Education in University of Ibadan:*

The University of Ibadan Distance Learning Centre (DLC), formerly known as *Centre for External Studies*, started in 1988, through the Department of Adult Education (Commonwealth of Learning International, 2001). Its focus was initially on training teachers, particularly practicing teachers, who needed to upgrade qualifications, as well as guidance/ counseling training and development of adult educators. The main thrust of delivery in the Centre's programmes was through printed materials developed by university lecturers. After registration, students take materials home to study, and then return to the University for a six-week residential session. At this session, they also write a final examination. The Centre established study centers to support students (where they are able to register, collect materials, and organize teaching practical). Currently, the Centre has improved its mode of service delivery in line with the global trend by including e-learning and e-materials. The use of Internet has been employed in delivery of most of its services like the online

application for its courses, students' registration, and circulation of course materials by uploading on the web, among others (Babalola and Babalola, 2014).

In addition, almost all the course materials have been converted into soft copies on CD and uploaded online for students' wider accessibility. In addition, lectures are delivered through radio to the students. To improve knowledge on the use of computer and Internet, DLC designated some computer training centers to teach its students on various computer packages. With all these transformation, the rate of adoption of these ICTs by students and contributions to their studies are not yet understood. There is therefore the need for assessment of the extent to which the students have welcomed the transformation and how this is contributing to their studies. The aim of this study is therefore to evaluate the extent to which the DLC students have adopted, preferred, and used the ICTs platforms employed by the University of Ibadan DLC. The quality of ICT services rendered by the DLC designated computer training center is also assessed (Babalola and Babalola, 2014).

## 2.2 Empirical Review:

Cheung and Kan, (2002) evaluated factors related to student performance in the open and distance learning environment in Hong Kong by using two-way cross-tabulations with chi-square testing and equality of academic performance by proposed factors, the study examined 168 students in a distance-learning business communication course. Results showed that tutorial attendance, gender, relevant academic background, previous academic achievement, and relevant learning experience were related to student performance. The results are mostly similar to those of prior studies despite differences in culture, teaching mode, and subject.

AL-Mutairi, (2010) investigated factors affecting student performance in Arab Open University- Kuwait branch.

All graduate students during the academic year 2009-2010 were examined and 566 questionnaires were distributed to graduates students consisting of 353 female and 213 male students. The data were analyzed by using ordinary least square (OLS) multiple regressions. The outcome of the analysis revealed that the Grade Point Average (GPA) of the student is affected by age, score of the high school and nationality. Also, younger students perform better than mature students and non-national students perform better than national student, significant gender differences exists because female students perform better than male counterparts while marital status plays a significant role in determining the student's performance by confirming that married students perform better than non-married counterparts.

Bonito, (2013) describes the relationship between motivation factors and academic performance among distance education students enrolled in a postgraduate nursing course. Students (n=96) participated in a survey that assesses student's motivational orientations from a cognitive perspective using a self-administered questionnaire based on Pintrich's Motivation Strategies for Learning Questionnaire (MLSQ). Results showed students' motivational factors are highest on task value (6.44, 0.71); followed by intrinsic goal orientation (6.20, 0.76), control beliefs (6.02, 0.89); extrinsic goal orientation (5.85, 1.13); self-efficacy for learning and performance (5.62, 0.84), and finally, test anxiety (4.21, 1.37). Weak positive correlations were found between academic performance and intrinsic goal orientation ( $r=0.13$ ), extrinsic goal orientation ( $r=0.04$ ), task value ( $r=0.09$ ), control beliefs ( $r=0.02$ ), and self-efficacy ( $r=0.05$ ), while there was weak negative correlation with test anxiety ( $r=-0.04$ ).

Obioha and Ndidi, (2013) identified the administrative problems of open and distance education in Nigeria with particular reference to National Open University of Nigeria and to ascertain

whether there is a significant difference between the administrative problems of National Open University in the two broad geopolitical zones (Northern and Southern zone) of Nigeria. To guide the study, two research questions and one hypothesis were formulated. The study was carried out in all the study centers in the geo-political zones of Nigeria. The population of the study comprised of five administrative staff from each of the 26 study centers of National Open University of Nigeria, numbering 130, who also served as respondents. Questionnaire (NOUAPS) was used for data collection. The data generated were analyzed with mean and t-test. It was found that there is no significant different between the administrative problems identified in the study centers of National Open University in the Northern and Southern geo political zones of Nigeria.

Babalola and Babalola, (2014) examined the use of information and communication technologies among distance learning students of the University of Ibadan, Nigeria. Simple random sampling technique was employed for administration of 100 copies of structured questionnaire to the students. The study therefore evaluates the preference, level of adoption and usage of these ICTs by the students. The use of internet ranked topmost among the ICTs platforms used by the students, although majority of the students are still faced with the challenge of inaccessibility and visit commercial cyber cafés to access Internet for their studies. About 47.9% of the students preferred hard copies of DLC course materials and 58.5% strongly disagree with the use of CD as DLC reading materials.

Naidu and Derani, (2016) compared public and private Universities in Malaysia and also to investigate quality of a University. The study focused on undergraduate students in their second year of study using descriptive statistics and compare mean. The findings highlights the dimension or variable which affect private and public

Universities; quality of this university. It was found from the study that there are indeed certain elements or factors that differ between public university and private.

### 3. METHODOLOGY:

The theoretical framework for this study is Bronfenbrenner's (2008) ecological theory suggests that a person's surroundings including their home(*H*), school(*S*), work(*W*), church(*CH*), neighbourhood(*N*), culture(*C*) and government(*G*) have an influence on the way a child performance (Donald *et al*, 2010; Woolley and Kaylor, 2006).

$$CP = f(H, S, W, CH, N, C \& G).....(1)$$

This theory looks at learners' development within the context of the system of relationships that form their environment. According to this model, the microsystem is the small, immediate environment in which the child lives. Children's microsystems will include any immediate relationships or organizations they interact with, such as their immediate family (*IF*), school(*S*), peers(*P*), neighbor's (*N*) and caregivers(*CG*). How these groups or organisations interact with the girl child will have an effect on how the child grows, the more encouraging and nurturing these relationships and places are, the better the child will be able to grow (Donald *et al*, 2010).

$$CP = f(IF, S, P, N \& CG)...2)$$

Based on the theoretical framework discussed above, the model is specified with some modification. Both ordinary least square (OLS) and probit regression model were specified.

$$AP_1 = f(H, S, W, R, M, P, G \& CG).....(3)$$

$$\Pr(AP_2 = 1) = \phi(H, S, W, R, M, P, G \& CG).....(4)$$

Where  $AP_1$  is Academic Performance (using their current CGPA),  $AP_2$  is Academic Performance (1 for second class upward and 0 for below second class), *H* is Home Factor, *S* is School Factor, *W* is Work Factor, *R* is Religion

Factor, *Mis* Management Factor, *P* is Peers Group Factor, *G* is Government Activities and *CG* is Caregivers Factor

The linear regression model of the above relationship is given below:

$$AP_1 = \beta_0 + \beta_1 H + \beta_2 S + \beta_3 W + \beta_4 R + \beta_5 M + \beta_6 P + \beta_7 G + \beta_8 CG + e \dots (5)$$

$$P(AP_1 = 1) = \beta_0 + \beta_1 H + \beta_2 S + \beta_3 W + \beta_4 R + \beta_5 M + \beta_6 P + \beta_7 G + \beta_8 CG + e \dots (6)$$

$\beta_0$  is intercept and  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$  are slope coefficient while *e* is stochastic term.

The study used self-made questionnaires and two hundred and fifty (250) questionnaires were distributed to different department in order to gather some necessary and relevant information among undergraduate students of distance learning center, University of Ibadan. The returned questionnaires were subject to reliability test which measure the overall consistency condition where Cochran's Alpha test was used and the result of the Cochran's Alpha test was 0.919 which implies highly reliable accuracy, reproducible, and consistency of the data even though random selection of participants were done in other for the sample to be unbiased representative of the all students in distance learning center, University of Ibadan. Descriptive statistics, cross tabulation, correlation analysis, ordinary least square regression (OLS) and probit regression were the appropriate techniques used.

#### 4. EMPIRICAL ANALYSIS:

From the socio-economic characteristics above, it was revealed that 50.2% of the respondent were male while only 49.8% were female. Also, 38.1% of the respondents were single and 41% were married while 20.9% were divorced/separated/widow. Based on their age, 36.8% of the respondents were within the age bracket of 20 and below, 15.1% were within the age bracket of 21 – 30 years and 24.3% were within the age bracket of 31 – 40 years while the remaining 23.8% were within the age

bracket of 40 years and above. Moreover, 49.4% of the respondents were Christian and the remaining 50.6% were Muslim. Therefore, there are more Muslim participants than Christian. Also, 28.8% of the respondents were students, 9.4% were private worker and 9% were government worker while the remaining 52.8% were self-employed.

Furthermore, 52.9% of the respondents were in 100 level, 44.5% were in 200 level, 1.7% were in 300 level and the remaining 0.8% were in 400 level. In the same vein, 7.5% of the respondents were from political science department, 7.1% of the respondents were from sociology department, 11.3% of the respondents were from geography department, 25.1% of the respondents were from social work department, 5.9% of the respondents were from psychology department, 14.6% of the respondents were from statistics department and 16.3% of the respondents were from economic department while the remaining 12.1% of the respondents were from adult education department. Lastly, 52.7% of the respondents were on 4.6 – 5.9 CGPA, 42.7% of the respondents were on 2.6 – 4.5 CGPA and 2.9% of the respondents were on 1.6 – 2.5 CGPA while the remaining 1.7% of the respondents were on 1.0 – 1.5 CGPA.

Based on management factor with respondents' sex, it was revealed that 47.3% of the male strongly agree that there is a proper management in DLC, 29.7% of male agree that there is proper management in DLC and 6.3% of female agree that there is proper management in DLC, 7.5% of male strongly disagree that there is proper management in DLC and 1.3% of female strongly disagree that there is proper management in DLC while 7.9% of male disagree that there is proper management in DLC. Therefore, the chi-square of 111.912 with probability value of 0.000 indicates that there is a proper management in DLC. Also, 40.2% strongly agree that DLC syllabus conducive for workers and 7.5% strongly agree that there is proper management

Table 1: Socio-Economic Characteristics of Respondents

Questions	Category	Frequency	Percent (%)
Gender	Male	120	50.2
	Female	119	49.8
Marital Status	Single	91	38.1
	Married	98	41.0
	Divorced/Separated/Widow	50	20.9
Age	20 and Below	88	36.8
	21 – 30 Years	36	15.1
	31 – 40 Years	58	24.3
	40 Years & above	57	23.8
Religion	Christian	118	49.4
	Muslim	121	50.6
	Others	0	0
Occupation	Student	67	28.8
	Private Worker	22	9.4
	Government Worker	21	9.0
	Self Employed	123	52.8
Level	100 Level	126	52.9
	200 Level	106	44.5
	300 Level	4	1.7
	400 Level	2	0.8
	500 Level	0	0
Department	Political Science	18	7.5
	Sociology	17	7.1
	Geography	27	11.3
	Social Work	60	25.1
	Psychology	14	5.9
	Statistics	35	14.6
	Economics	39	16.3
	Adult Education	29	12.1
What is your present CGPA?	6.0 and above	0	0
	4.6-5.9	126	52.7
	2.6-4.5	102	42.7
	1.6-2.5	7	2.9
	1.0-1.5	4	1.7

Source: Field Survey, 2018

in DLC, 33.1% of male agree that there is proper management in DLC, 13.4% of the male said they are uncertain whether there is proper management in DLC and 2.1% of the male strongly disagree that there is proper management in DLC while the remaining 3.8% of the respondents disagree that there is proper management in DLC. The chi-square result implies that the DLC syllabus is conducive for workers ( $\chi^2 = 187.088, p < .01$ ).

Lastly, 45.6% of male strongly agree that they are properly attended to by their department and 7.5% of female strongly agree that they are properly attended to by their department, 36.8% of male agree

that they are properly attended to by their department, 7.5% of male were uncertain that they are properly attended to by their department and 1.3% of male strongly disagree that they are properly attended to by their department while 1.3% of male disagree that they are properly attended to by their department. With the chi-square result, it means that the respondents were properly attended to in their department ( $\chi^2 = 267.590, p < .01$ ).

Furthermore, 23% of male respondents strongly agree that their job interrupt their academic activities and 5.4% of female respondents strongly agree that their job interrupt their academic activities.

Table 2: Cross Tabulation between Management in DLC with Respondents' Sex

Questions	Category	Sex		Total	Chi-Square ( $\chi^2$ ) and Probability Values
		Male	Female		
Is there any proper management in DLC?	Strongly Agree	113 (47.3%)	0(0.0%)	113 (47.3%)	111.912 (0.000)
	Agree	71 (29.7%)	15 (6.3%)	86 (36.0%)	
	Uncertain	0 (0.0%)	0 (0.0%)	0 (0.0%)	
	Strongly Disagree	18 (7.5%)	3 (1.3%)	21 (8.8%)	
	Disagree	19 (7.9%)	0 (0.0%)	19 (7.9%)	
Is DLC syllabus conducive for workers?	Strongly Agree	96 (40.2%)	18 (7.5%)	114 (47.7%)	187.088 (0.000)
	Agree	79 (33.1%)	0 (0.0%)	79 (33.1%)	
	Uncertain	32 (13.4%)	0 (0.0%)	32 (13.4%)	
	Strongly Disagree	5 (2.1%)	0 (0.0%)	5 (2.1%)	
	Disagree	9 (3.8%)	0 (0.0%)	9 (3.8%)	
Are you properly attended to in your department?	Strongly Agree	109 (45.6%)	18 (7.5%)	127 (53.1%)	267.590 (0.000)
	Agree	88 (36.8%)	0 (0.0%)	88 (36.8%)	
	Uncertain	18 (7.5%)	0 (0.0%)	18 (7.5%)	
	Strongly Disagree	3 (1.3%)	0 (0.0%)	3 (1.3%)	
	Disagree	3 (1.3%)	0 (0.0%)	3 (1.3%)	

Source: Field Survey, 2018

Table 3: Cross Tabulation between Workers in DLC Program with Respondents' Sex

Questions	Category	Sex		Total	Chi-Square ( $\chi^2$ ) and Probability Values
		Male	Female		
Does your job interrupt academic activities?	Strongly Agree	55 (23.0%)	13 (5.4%)	68 (28.5%)	147.799 (0.000)
	Agree	107 (44.8%)	5 (2.1%)	112 (46.9%)	
	Uncertain	30 (12.6%)	0 (0.0%)	30 (12.6%)	
	Strongly Disagree	14 (5.9%)	0 (0.0%)	14 (5.9%)	
	Disagree	15 (6.3%)	0 (0.0%)	15 (6.3%)	
Does changes in interactive classes/examination timetable affect workers on their leave?	Strongly Agree	101 (42.3%)	18 (7.5%)	119 (49.8%)	203.406 (0.000)
	Agree	80 (33.5%)	0 (0.0%)	80 (33.5%)	
	Uncertain	12 (5.0%)	0 (0.0%)	12 (5.0%)	
	Strongly Disagree	9 (3.8%)	0 (0.0%)	9 (3.8%)	
	Disagree	19 (7.9%)	0 (0.0%)	19 (7.9%)	

Source: Field Survey, 2018

Also, 44.8% of male respondents agree that their job interrupt their academic activities and 2.1% of female respondents agree that their job interrupt their academic activities while 12.6% of male respondents were uncertain that their job interrupt their academic activities. Furthermore, 5.9% of male respondents strongly disagree that their job interrupt their academic activities while 6.3% of male respondents disagree that their job interrupt their academic

activities. With the chi-square result, it means that the respondents job interrupt their academic activities ( $\chi^2 = 147.799$ ,  $p < .01$ )

In the same manner, 42.3% of male respondents strongly agree that changes in interactive classes/examination timetable affect workers on their leave and 7.5% of female respondents strongly agree that changes in interactive classes/examination timetable affect workers on their leave, 33.5% of male respondents agree that

changes in interactive classes/examination timetable affect workers on their leave, 5% of male respondents were uncertain that changes in interactive classes/examination timetable affect workers on their leave and 3.8% of male respondents strongly disagree that changes in interactive classes/examination timetable affect workers on their leave while 7.9% of male respondents disagree that changes in interactive classes/examination timetable affect workers on their leave. The chi-square result implies that changes in interactive classes/examination timetable affect workers on their leave ( $\chi^2 = 203.406$ ,  $p < .01$ ).

Based on peer group factor, 49.8% of male respondents' strongly agree that peer group affect their academic performance and 7.5% of female respondents' strongly agree that peer group affect their academic performance, 31% of male respondents' agree that peer group affect their academic performance, 7.1% of male respondents' were uncertain that peer group affect their academic performance and 3.3% of male respondents' strongly disagree that peer group affect their academic performance while 1.3% of male respondents' disagree that peer group affect their academic performance. The chi-square result implies that peer group affect their academic performance ( $\chi^2 = 275.791$ ,  $p < .01$ ).

Also, 59.8% of male respondents' strongly agree that their choice of studying under open and distance learning (ODL) program is being influenced by their friends, 7.5% of female respondents' strongly agree that their choice of studying under open and distance learning (ODL) program is being influenced by their friends, 23.8% of male respondents' agree that their choice of studying under open and distance learning (ODL) program is being influenced by their friends, 3.3% of male respondents' were uncertain that their choice of studying under open and distance learning (ODL) program is being influenced by their friends and 2.1% of male respondents'

strongly disagree that their choice of studying under open and distance learning (ODL) program is being influenced by their friends while 3.3% of male respondents' strongly agree that their choice of studying under open and distance learning (ODL) program is being influenced by their friends. With the chi-square result, it means that the respondents choice of studying ODL program is being influenced by their friends ( $\chi^2 = 374.452$ ,  $p < .01$ ).

Furthermore, 52.3% of male respondents strongly agree that their choice of studying a particular course under open and distance learning (ODL) program is being influenced by their friends and 7.5% of female respondents strongly agree that their choice of studying a particular course under open and distance learning (ODL) program is being influenced by their friends. Also, 27.2% of male respondents agree that their choice of studying a particular course under open and distance learning (ODL) program is being influenced by their friends while 4.6% of male respondents were uncertain that their choice of studying a particular course under open and distance learning (ODL) program is being influenced by their friends. In the same vein, 5.9% of male respondents strongly disagree that their choice of studying a particular course under open and distance learning (ODL) program is being influenced by their friends while the remaining 2.5% of male respondents disagree that their choice of studying a particular course under open and distance learning (ODL) program is being influenced by their friends. The chi-square result implies that the respondents choice of studying a particular course under ODL program is being influenced by their friend ( $\chi^2 = 284.577$ ,  $p < .01$ ).

Table 4: Cross Tabulation between Peer Group under DLC Students with Respondents' Sex

Questions	Category	Sex		Total	Chi-Square ( $\chi^2$ ) and Probability Values
		Male	Female		
Does peer group affect your academic performance?	Strongly Agree	119 (49.8%)	18 (7.5%)	137 (57.3%)	275.791 (0.000)
	Agree	74 (31.0%)	0 (0.0%)	74 (31.0%)	
	Uncertain	17 (7.1%)	0 (0.0%)	17 (7.1%)	
	Strongly Disagree	8 (3.3%)	0 (0.0%)	8 (3.3%)	
	Disagree	3 (1.3%)	0 (0.0%)	3 (1.3%)	
My choice of studying under open and distance learning (ODL) program is being influenced by my friends.	Strongly Agree	143 (59.8%)	18 (7.5%)	161 (67.4%)	374.452 (0.000)
	Agree	57 (23.8%)	0 (0.0%)	57 (23.8%)	
	Uncertain	8 (3.3%)	0 (0.0%)	8 (3.3%)	
	Strongly Disagree	5 (2.1%)	0 (0.0%)	5 (2.1%)	
	Disagree	8 (3.3%)	0 (0.0%)	8 (3.3%)	
My choice of studying a particular course under open and distance learning (ODL) program is being influenced by my friends.	Strongly Agree	125 (52.3%)	18 (7.5%)	143 (59.8%)	284.577 (0.000)
	Agree	65 (27.2%)	0 (0.0%)	65 (27.2%)	
	Uncertain	11 (4.6%)	0 (0.0%)	11 (4.6%)	
	Strongly Disagree	14 (5.9%)	0 (0.0%)	14 (5.9%)	
	Disagree	6 (2.5%)	0 (0.0%)	6 (2.5%)	

Table 5: Cross Tabulation between Home Backgrounds of the Students with Respondents' Sex

Questions	Category	Sex		Total	Chi-Square ( $\chi^2$ ) and Probability Values
		Male	Female		
People from polygamous families often perform badly because of their family background.	Strongly Agree	49 (20.5%)	7 (2.9%)	56 (23.4%)	32.820 (0.000)
	Agree	55 (23.0%)	11 (4.6%)	66 (27.6%)	
	Uncertain	64 (26.8%)	0 (0.0%)	64 (26.8%)	
	Strongly Disagree	26 (10.9%)	0 (0.0%)	26 (10.9%)	
	Disagree	27 (11.3%)	0 (0.0%)	27 (11.3%)	
Level of education of parents affects students' academic performance.	Strongly Agree	63 (26.4%)	17 (7.1%)	80 (33.5%)	124.787 (0.000)
	Agree	97 (40.6%)	1 (0.4%)	98 (41.0%)	
	Uncertain	30 (12.6%)	0 (0.0%)	30 (12.6%)	
	Strongly Disagree	14 (5.9%)	0 (0.0%)	14 (5.9%)	
	Disagree	17 (7.1%)	0 (0.0%)	17 (7.1%)	

Moreover on the home background factors, 20.5% of male respondents' strongly agree that people from polygamous families often perform badly because of their family background and 2.9% of female respondents' strongly agree that people from polygamous families often perform badly because of their family background. Also, 23% of male respondents' agree that people from polygamous families often perform badly

because of their family background and 4.6% of female respondents' agree that people from polygamous families often perform badly because of their family background while 26.8% of male respondents' were uncertain that people from polygamous families often perform badly because of their family background. Furthermore, 10.9% of male respondents' strongly disagree that people from polygamous families often perform badly

because of their family background while 11.3% of male respondents' disagree that people from polygamous families often perform badly because of their family background. Therefore, the chi-square affirm that that people from polygamous families often perform badly because of their family background ( $\chi^2 = 32.820$ ,  $p < .01$ ).

Furthermore, 26.4% of the male respondents' strongly agree that level of education of their parents affects their academic performance while 7.1% of the female respondents' strongly agree that level of education of their parents affects their academic performance. In the same vein, 40.6% of the male respondents' agree that level of education of their parents affects their academic performance while 0.4% of the female respondents' agree that level of education of their parents affects their academic performance. Also, 12.6% of the male respondents' were uncertain that level of education of their parents affects their academic performance and 5.9% of the male respondents' strongly disagree that level of education of their parents affects their academic performance while 7.1% of the male respondents' disagree that level of education of their parents affects their academic performance. With the chi-square result, it means that level of education of their parents affects their academic performance ( $\chi^2 = 124.787$ ,  $p < .01$ ).

On caregiver factor, 37.2% of male respondents' strongly agree that their education is being sponsored by their parents while 7.5% of female respondents' strongly agree that their education is being sponsored by their parents. Also, 25.5% of male respondents' agree that their education is being sponsored by their parents while 21.3% of male respondents' were uncertain that their education is being sponsored by their parents. Moreover, 4.2% of male respondents' strongly disagree that their education is being sponsored by their parents while 4.2% of male respondents' disagree that their education is being

sponsored by their parents. Therefore, respondents' education were being sponsored by their parents from the chi-square ( $\chi^2$ ) result of 136.962 with probability result of 0.000. In the same manner, 40.6% of male respondents' strongly agree that their education is being sponsored by their siblings and others while 7.5% of female respondents' strongly agree that their education is being sponsored by their siblings and others. Also, 42.7% of male respondents' agree that their education is being sponsored by their siblings and others while 7.1% of male respondents' were uncertain that their education is being sponsored by their siblings and others and the remaining 2.1% of male respondents' strongly disagree that their education is being sponsored by their siblings and others. With the chi-square result, it mean that respondents' education were being sponsored by their siblings and others ( $\chi^2 = 124.787$ ,  $p < .01$ ).

Also, 36.6% of male respondents' strongly agree that their education is being sponsored by themselves while 7.5% of female respondents' strongly agree that their education is being sponsored by themselves. Furthermore, 39.9% of male respondents' agree that their education is being sponsored by themselves while 11.8% of male respondents' were uncertain that their education is being sponsored by themselves. Also, 1.7% of male respondents' strongly disagree that their education is being sponsored by themselves while the remaining 2.5% of male respondents' strongly agree that their education is being sponsored by themselves. Therefore, the chi-square affirm that that the respondents' education were being sponsored by themselves ( $\chi^2 = 200.782$ ,  $p < .01$ ).

On the government activities factor, 38.5% of the male respondents' strongly agree that government activities like strike affects their education under ODL program while 7.5% of the female respondents' strongly agree that government activities like strike affects their education under ODL program.

Table 6: Cross Tabulation between Caregiver with Respondents' Sex

Questions	Category	Sex		Total	Chi-Square ( $\chi^2$ ) and Probability Values
		Male	Female		
My education is being sponsored by my parents.	Strongly Agree	89 (37.2%)	18 (7.5%)	107 (44.8%)	136.962 (0.000)
	Agree	61 (25.5%)	0 (0.0%)	61 (25.5%)	
	Uncertain	51 (21.3%)	0 (0.0%)	51 (21.3%)	
	Strongly Disagree	10 (4.2%)	0 (0.0%)	10 (4.2%)	
	Disagree	10 (4.2%)	0 (0.0%)	10 (4.2%)	
My education is being sponsored by siblings and others.	Strongly Agree	97 (40.6%)	18 (7.5%)	115 (48.1%)	161.720 (0.000)
	Agree	102 (42.7%)	0 (0.0%)	102 (42.7%)	
	Uncertain	17 (7.1%)	0 (0.0%)	17 (7.1%)	
	Strongly Disagree	5 (2.1%)	0 (0.0%)	5 (2.1%)	
	Disagree	0 (0.0%)	0 (0.0%)	0 (0.0%)	
My education is being sponsored by myself.	Strongly Agree	87 (36.6%)	18 (7.5%)	105 (44.1%)	200.782 (0.000)
	Agree	95 (39.9%)	0 (0.0%)	95 (39.9%)	
	Uncertain	28 (11.8%)	0 (0.0%)	28 (11.8%)	
	Strongly Disagree	4 (1.7%)	0 (0.0%)	4 (1.7%)	
	Disagree	6 (2.5%)	0 (0.0%)	6 (2.5%)	

Table 7: Cross Tabulation between Government Activities with Respondents' Sex

Questions	Category	Sex		Total	Chi-Square ( $\chi^2$ ) and Probability Values
		Male	Female		
Does government activities like strike affects my education under open and distance learning (ODL) program?	Strongly Agree	92 (38.5%)	18 (7.5%)	110 (46.0%)	274.452 (0.000)
	Agree	111 (46.4%)	0 (0.0%)	111 (46.4%)	
	Uncertain	8 (3.3%)	0 (0.0%)	8 (3.3%)	
	Strongly Disagree	3 (1.3%)	0 (0.0%)	3 (1.3%)	
	Disagree	7 (2.9%)	0 (0.0%)	7 (2.9%)	
Non-payment of salary to government workers will affect the payment of my school fee.	Strongly Agree	121 (50.6%)	18 (7.5%)	139 (58.2%)	293.029 (0.000)
	Agree	77 (32.2%)	0 (0.0%)	77 (32.2%)	
	Uncertain	9 (3.8%)	0 (0.0%)	9 (3.8%)	
	Strongly Disagree	6 (2.5%)	0 (0.0%)	6 (2.5%)	
	Disagree	8 (3.3%)	0 (0.0%)	8 (3.3%)	

In the same vein, 46.4% of the male respondents' agree that government activities like strike affects their education under ODL program while 3.3% of the male respondents' were uncertain that government activities like strike affects their education under ODL program. Furthermore, 1.3% of the male respondents' strongly disagree that government activities like strike affects their education under ODL program while 2.9% of the male respondents' disagree that government activities like strike

affects their education under ODL program but with the chi-square value of 274.452 with the probability value of 0.000 implies that government activities like strike affects their education under ODL program.

Furthermore, 50.6% of male respondents' strongly agree that non-payment of salary to government workers affect their payment of school fee while 7.5% of female respondents' strongly agree that non-payment of salary to government workers affect their payment

Table 8: Relationship between Management Factor, Workers Factor, Peer Pressure, Home Factor, Caregiver Factor, Government Factor and Academic Performance

		Academic Performance
Management Factor	Pearson Correlation	.034
	Sig. (2-tailed)	.597
	No of Observation	239
Workers Factor	Pearson Correlation	.200**
	Sig. (2-tailed)	.002
	No of Observation	239
Peer Pressure	Pearson Correlation	.099
	Sig. (2-tailed)	.129
	No of Observation	239
Home Factor	Pearson Correlation	.178**
	Sig. (2-tailed)	.006
	No of Observation	239
Caregiver Factor	Pearson Correlation	.168**
	Sig. (2-tailed)	.009
	No of Observation	239
Government Factor	Pearson Correlation	.102
	Sig. (2-tailed)	.114
	No of Observation	239

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 9: Regression Analysis on Factors that Determine the Academic Performance Students

Explanatory Variables	Dependent Variable: Academic Performance	
	OLS Regression Result	Probit Regression Result
Home Factor	0.1474[0.078]*	-1.6998[0.000]***
School Factor	-0.1928[0.095]*	-.0488[0.525]
Work Factor	0.1488[0.071]*	2.0499[0.000]***
Religion Factor	0.2043[0.049]**	1.1501[0.012]**
Management Factor	-0.0549[0.173]	.5809[0.000]***
Peers Group Factor	-0.1672[0.180]	-2.3935[0.004]***
Government Activities	-0.0521[0.735]	-1.0382[0.160]
Caregivers Factor	0.0926[0.616]	2.2194[0.000]***
_cons	1.2739[0.000]***	-3.0806[0.000]***
	F(8, 230) = 2.83[0.0052]***	LR chi2(8) = 71.59[0.0000]***
	R-Squared = 0.4896	Pseudo R-squared = 0.4470
	Adj R-Squared = 0.3579	Log Likelihood = -44.2892
	Number of obs = 239	Number of obs = 239

Source: Field Survey, 2018

Note that \*\*\*, \*\* & \* represent 1%, 5% & 10% level of significant

of school fee. Also, 32.2% of male respondents' agree that non-payment of salary to government workers affect their payment of school fee while 3.8% of male respondents' were uncertain that non-payment of salary to government workers affect their payment of school fee.

Moreover, 2.5% of male respondents strongly disagree that non-payment of salary to government workers affect their payment of school fee while 3.3% of male respondents' disagree that non-payment of salary to government workers affect their payment of school fee.

From the correlation analysis, it was revealed that management factor has a positive but insignificant relationship with academic performance of DLC in University of Ibadan. Also, workers factor has positive but significant relationship with academic performance. This implies that people in DLC there job interrupt with their academic performance. Furthermore, peer pressure has a positive insignificant relationship with academic performance and also, home factor has a positive significant relationship with academic performance indicating that home background like people from polygamous families often perform badly because of their family background. Also, caregiver factor has a positive significant relationship with academic performance. Therefore, caregiver influences the academic performance of DLC students in University of Ibadan. Lastly, government factor has a positive but insignificant relationship with academic performance.

From the OLS result, the result shows that home factor, school factor, work factor and religion factor are the factors that determine the academic performance of University of Ibadan distance learning students but home factor, work factor and religion factor exert a positive significant impact on academic performance of University of Ibadan distance learning students ( $\beta_1 = 0.1473604$ ,  $p = 0.078$ ;  $\beta_3 = 0.1488303$ ,  $p = 0.071$  &  $\beta_4 = 0.2043724$ ,  $p = 0.049$ ) while school factor exert a negative significant impact on University of Ibadan distance learning students ( $\beta_2 = -0.192849$ ,  $p = 0.095$ ). The R-squared value of 0.4896 showed that 48.96% of academic performance of University of Ibadan distance learning student is explained by all the independent variable (home factor, school factor, work factor, religion factor, management factor, peers group factor, government activities and caregivers factor) while the value of the R-Bar-squared of 0.3579 showed that 35.79% of the total variance in academic performance of University of Ibadan distance learning student is explained by all the independent variable (home factor,

school factor, work factor, religion factor, management factor, peers group factor, government activities and caregivers factor). Also, the F-statistic of 2.83 [ $P < .01$ ] implied that the overall model is significant.

From Probit regression result, the result shows that home factor, work factor, religion factor, management factor, peers group factor and caregivers' factor are the factors that determine the academic performance of University of Ibadan distance learning students but work factor, religion factor, management factor and caregivers' factor exert a positive significant impact on academic performance of University of Ibadan distance learning students ( $\beta_3 = 2.0499$ ,  $p = 0.000$ ;  $\beta_4 = 1.1501$ ,  $p = 0.012$ ;  $\beta_5 = 0.5809$ ,  $p = 0.000$  &  $\beta_8 = 2.2194$ ,  $p = 0.000$ ) while home factor and peer group factor exert a negative significant impact on University of Ibadan distance learning students ( $\beta_1 = -1.6998$ ,  $p = 0.000$  &  $\beta_6 = -1.0382$ ,  $p = 0.160$ ). The probit model for academic performance is statistically significant at 1% level of significance as indicated by the likelihood ratio value (LR Chi2(8) = 71.59;  $p < 0.000$ ). Also, the Pseudo R<sup>2</sup> indicated that all the explanatory variables can only explanatory 44.70% of variation in academic performance in the study area. The iteration log indicate how quickly the model converged and the log likelihood of -44.2892 implied that 5 iterations was necessary to find the maximum of the log likelihood function.

The findings of this study was similar to the findings of Cheung and Kan, (2002); Obioha and Ndidi, (2013) & Naidu and Derani, (2016) while some variable do not concur to the findings of AL-Mutairi, (2010).

## 5. CONCLUSION AND POLICY RECOMMENDATIONS:

The OLS regression result showed that home factor, school factor, work factor and religion factor are the factors that determine the academic performance of University of Ibadan

distance learning students but home factor, work factor and religion factor exert a positive significant impact on academic performance of University of Ibadan distance learning students ( $\beta_1 = 0.1473604, p = 0.078; \beta_3 = 0.1488303, p = 0.071$  &  $\beta_4 = 0.2043724, p = 0.049$ ) while school factor exert a negative significant impact on University of Ibadan distance learning students ( $\beta_2 = -0.192849, p = 0.095$ ). Also, the probit regression result showed that home factor, work factor, religion factor, management factor, peers group factor and caregivers' factor are the factors that determine the academic performance of University of Ibadan distance learning students but work factor, religion factor, management factor and caregivers' factor exert a positive significant impact on academic performance of University of Ibadan distance learning students ( $\beta_3 = 2.0499, p = 0.000; \beta_4 = 1.1501, p = 0.012; \beta_5 = 0.5809, p = 0.000$  &  $\beta_8 = 2.2194, p = 0.000$ ) while home factor and peer group factor exert a negative significant impact on University of Ibadan distance learning students ( $\beta_1 = -1.6998, p = 0.000$  &  $\beta_6 = -1.0382, p = 0.160$ ).

The study recommended that DLC students should not allow their work to intervene with their academic performance. They should create time for both their work and their academic so that both will not affect each other. Students of DLC should not allow their religion to affect their performance in school. Since majority of students under the DLC programme are working class, the management should put this into consideration for their students to perform very well.

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