A Survey of Challenges Experienced by National Open University of Nigeria Students: A Case Study of Ibadan Study Centre

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Abstract

Distance learning is an excellent method of reaching different categories of learners. Due to the competing priorities of work, home, and school, some learners desire a high degree of flexibility. The structure of the National Open University of Nigeria (NOUN) gives the learner the greatest possible control over the time, place and pace of education; however, it is not without problems. Loss of student motivation and high attrition rate due to lack of face-to-face contact with teachers and peers, information and communication technology (ICT) and non availability of materials constitute barriers to successful distance learning. Available data at Ibadan Study Centre show a high student attrition rate; partly attributable to the above factors. Thus, attrition rate casts a dark cloud on the future of open and distance learning in Nigeria. Therefore, this study examined the influence of gender, course of study and age on problems experienced by students of Ibadan Study Centre on ICT, course materials and face-to-face contacts (facilitation). Descriptive survey design was adopted for this study. Nine hundred and forty students (Male=504, Female=436) with age range of 18 to 61 years (x =28.66; SD=9.67) who enrolled in various degree programmes were purposively selected for this study. The student counsellors' ledger was the main instrument used for data collection. The ledger consists of seven columns that obtained information about the respondents' demographic characteristics such as age, gender and course of study. Chi square for independency was used to test the five formulated hypotheses at >0.05 alpha level. The results show

that gender and previous experience on ICT significantly influenced problems associated with ICT (X^2= 13.91> 0.05) and (X^2=64.75 > 0.05). Similarly, gender and age significantly influenced problems associated with facilitation (X^2=19.14 > 0.05) and (X^2=34.78> 0.05). Programme of study was found to have significant influence on the problems the students experienced on course materials ($X2$=18.07> 0.05). These findings behoove the university management to put gender and age inequality in Internet and computer usage into considerations when designing online activities for the students. The study outcomes also have implications for policy formulations with respect to facilitation and course materials.

Introduction

The Human Development Report defines development as a process of increasing choices that people have in order to improve their lives. In particular, the report asserts that the purpose of development is to create an enabling environment for people to enjoy long, healthy and creative lives (UNDP, 1995:11).For this to happen, people need to acquire knowledge, information and experiences and access resources that would enable them achieve development goals. The role of education in promoting an enabling environment and empowering people has come to be accepted by the world. Open and Distance Learning (ODL) is now globally accepted as a viable alternative to enhance access to formal education.

Distance education or distance learning is a field of education that focuses on teaching methods and technology with the aim of delivering teaching, often on an individual basis, to students who are not physically present in a traditional educational setting such as a classroom. It has been described as "a process to create and provide access to learning when the source of information and the learners are separated by time and distance, or both" (Honeyman & Miller, 1993). Open learning allows learners *flexibility* and *choice* over what, when, at what pace, where, and how students learn. The National Open University of Nigeria (NOUN) was resuscitated on 1st

October, 2002 by former President Olusegun Obasanjo (Federal Ministry of Education, 2002). It took off with four schools namely School of Arts and Social Sciences (SASS); School of Business and Human Resources Management (SBHRM) now School of Management Science; School of Education (SEDU) and School of Science and Technology (SST). In 2009, the Law programme which was previously housed in SASS became a school of its own. Apart from the four schools mentioned above, there is also the Centre for Lifelong Learning and Workplace Training designed for students to undertake certificate, access and proficiency programmes.

The main academic activities of the students take place at the study centres. At present, NOUN has 48 study centres spread across the federation. The study centres are under the leadership of study centre directors; supported by other administrative staff. NOUN is designed to increase the access of all Nigerians to formal and non formal education in a manner that is convenient to their circumstances. This is in addition to catering for the continuous educational development of professionals such as teachers, nurses, accountants, bankers, lawyers, self-employed business men and business women e.tc.

The university adopts both synchronous and asynchronous learning modes of delivery to meet the needs of diverse learners. Synchronous learning mode is a mode of delivery where all participants are "present" at the same time while asynchronous mode is where participants access course materials on their own schedule and so is more flexible since students are not required to be together at the same time. In ODL, learners have relatively fewer opportunities to interact with instructors and peers than those who are in the conventional universities. Perhaps that explains why the tendency to drop-out in distance education due to 'transactional distance problem" (Ayo, Akinyemi, Adebiyi, & Ekong, 2007). Transactional distance is "a psychological and communications gap, a space of potential misunderstanding between the inputs of instructor and those of the learner" created in part by the physical distance inherent to online learning (Moore 1991:2). A large transactional distance—such as the one between geographically dispersed learners and instructors in NOUN may contribute to students' feelings of isolation and disconnectedness, which can lead to reduced levels of motivation and engagement and, consequently attrition.

As a result of the fact that ODL is relatively new in Nigeria, many of the learners come to NOUN with conventional education experience from primary and secondary and have been exposed to the learning culture of full time face- to- face and encounter a situation where a learner is dependent on the teacher. They lack experience as independent, self-directed learner and as such, they experience many challenges ranging from ICT- related to facilitation and course materials. Student counselling is one of the learner support services available in NOUN. Counsellors have regular interactions with the learners and offer them the opportunity to identify the challenges that the students are faced with at the study centres. Previous researchers (Ojo & Olakulehin, 2006) assessed students' perception and attitude towards teaching and learning in ODL. Similarly, Olubiyi and Inegbedion (2008) investigated the problems of distance learners in NOUN. However, none of the studies targeted a specific study centre. It is likely that the challenges experienced by the students differ from one centre to the other. In spite of the aforementioned gap. not much is encountered in the literature regarding empirically documented works on challenges based on study centres. Therefore, the present study examined the challenges experienced by Ibadan Study Centre students in ICT, facilitation and course materials which if left unchecked could lead to higher attrition rate.

Statement of Problem

The rate at which students drop out from programmes after registration in Ibadan Study Centre is of great concern to the management of the centre. This attrition rate casts a dark cloud on the future of open and distance learning in Nigeria. Available data from the study centre show that the number of students who registered declined from 94% in 2003/2004 to 35% in 2010 in all the programmes offered by the university. It is difficult to predict individual new students' chances of completion of study or success from their personal characteristics-such as age, gender, previous educational level and other factors. Studies (Ojo *et al.,* 2006; Olubiyi *et al.,* 2008) show that there is high correlation between frequent complaints and school attrition rate.

A review of the literature demonstrates that while there is no significant difference in achievement levels between distance and traditional learners, there is considerable variance in the challenges they experience (Ojo *et*

al.,2006). In explaining the advantages of knowing the learners problems, Knowles (1980), believes that academic success is influenced by a combination of the learner's needs plus the learner's situation and personal characteristics.

Purpose of the Study

The purpose of this study is to provide insights into some of the challenges faced by the Ibadan Study Centre students in order to reduce attrition rate. A study of this nature is highly desirable as NOUN has been mandated to provide access to higher education through ODL in Nigeria. This objective may be slipping away due to the attrition bedevilling the study centre. Many resources go into recruitment, induction and registration of these students with the university incurring costs regardless of the fact that some of these services would not be fully utilised. The issue is that NOUN has to pay for services, which students do not fully enjoy because they decide to depart early from their programmes.

Significance of the Study

This study is significant because it will provide the university management with evidence-based data on the challenges experienced by the students especially in the area of ICT. facilitation and course materials. The outcome of the study will also empower the student counsellors with clues on how to identify 'at-risk' students who can be targeted with academic and administrative support to increase their chances of staying in the programmes and successfully graduating. Most important, the findings can drive programme planning and policy formulation in Ibadan Study Centre specifically and ODL in Nigeria. Undoubtedly, this study would serve as a spring board for further studies in other NOUN Study Centres.

Literature Review

Face-to-Face Contacts (facilitation)

In most successful distance teaching institutions throughout the world, an element of interactive face- to- face forms part of the provision; this is to bridge the physical distance between educational providers and learners. Interaction, otherwise known as face-to-face contact, is key to foster,

support and engage learning (Anderson, 2003b). Garrison, Anderson and Archer (2000) opine that open and distance learning occurs through the interaction of three domains; social presence, cognitive presence and teaching presence. Kearsley (2002) concurred that a high level of interaction is desirable and positively affects the effectiveness of any distance education course. Olgren (2004) pointed out that it is not the type of interaction but rather the lack of interaction that leads to drop-out. Three interaction theories are relevant to this study namely; Guided Didactic Conversation, Three Part Model of interaction, and Interaction Equivalency Theorem.

Guided Didactic Conversation of Holmberg (1983) involves interaction or face-to-face between the instructor and the students mostly in text form and mediated by postal services. This special feature of conversational intercourse has been considered to function to overcome the "transactional distance" (Moore, 1993:22-23) - a psychological and pedagogical separation between teachers and learners. Moreover, Moore's (1989) Three Part Model of interaction is said to have been the first to define the concept of *interaction* in distance education systematically to include three types of interaction: learner-content, learner-instructor, and learner-learner (p.l). Learner-content interaction is the learner interacting with content that results in "changes in the learner's understanding, the learner's perspective, or the cognitive structures of the learner's mind" (p.2). Learner-instructor interaction is the learner interacting with an expert of the subject matter to gain support, including motivation, self-direction, presentation of information, and evaluation. Learner-learner interaction was regarded as a rather "new dimension" and a "challenge" in distance education development. Finally, the Equivalency Theorem propounded by Miyazoe and Anderson (2010) clarifies the different economies in distance education between independent-oriented and interactive-oriented learning strategies and activities.

The National Open University of Nigeria adopts Blended Learning which merges the traditionally separated spheres of face-to-face and distance learning with structured face-to face contacts making use of instructional materials such as print materials, audio and video cassettes, CD ROMs e.t.c. Students are encouraged to attend tutorials in addition to academic counselling services, which are often available as complements to tutorial sessions. Participation in tutorials is not compulsory and is regarded as

supplementary rather than prescribed (see Ipaye, 2007). Studies such as Knox's (1977) report that age, gender, family, work, community roles; physical condition; personality; and earning interests all affect the ability and willingness to participate in tutorial facilitation.

Information and Communication Technologies (ICTs)

Information and Communication Technologies (ICTs) are a "diverse set of tools and resources used to communicate, create, disseminate, store, and manage information (Tremblay, 2010). These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony. There is increasing interest in the use of computers and the Internet to improve education at all levels, in both formal and non formal settings (Tremblay, 2010). Genders, age, previous experience in ICT are some of the factors identified by researchers to influence internet usage. Gender differences in internet usage have been reported by many researchers. For instance, Teo and Lim's (1997) study in Singapore indicated that there is a differential access and usage between male and females in terms of technology. This is supported by Ford, Miller and Moss (2001) who found that females tended to experience more difficulty finding information online, to feel competent and comfortable using the internet, to use the internet less frequently than males and to make use of a less varied set of internet application. Majid (1999) found a similar result in using faculty members. He reported that while males tended to have computing skills than females, age and year of obtaining highest educational qualifications were also important factors in establishing computers skills.

This contradicts the findings of Koohang (1987); Sacks and Bellissimo (1994); Dyck and Smither (1994) who found that neither age nor gender was seriously correlated to computer usage and anxiety, instead, the report found significant difference in usage associated with previous experience in computer- related courses.

Course Materials

Learning materials are central to ODL systems. Poorly designed materials and non availability of materials will result in high drop-out rates and a bad reputation for the institution. ODL learning materials replace the

teacher, the classroom and. to a large extent, the interchange of ideas between students. This means that the materials have to do much more than, say, textbooks or handouts. For any materials to be considered good in ODL it must provide the content to be learnt, structure the content into learning sessions, provide activities to help students learn the content and apply it, provide feedback to learners, help them learn from their mistakes, motivate students and help students develop those study skills that are essential to individual learner (Commonwealth of Learning, 2004).

The National Open University of Nigeria provides instructions mainly through prepackaged learner-centred instructional materials written in accessible style which is unlike textbooks (which tend to be written for loosely specified, generic audiences). There are a number of personal, behavioural, and environmental factors. Such frequently identified ones are attitude, perceived ease of use. perceived usefulness, self-efficacy, and computer compatibility.

Several studies (Ojo *et al.,* 2006; Ghee & Heng, 2008; Olubiyi, *et al.,* 2008) show that learners irrespective of age and gender use materials which are considered to be relevant and effective. This is because relevant and effective materials enable students acquire specific skills, knowledge, and attitudes (Dick & Reiser, cited in Ghee & Heng, 1989).

Research Questions

This study is guided by the following research questions:
1.   To what extent are the challenges experienced by the students in ICT influenced by gender?
2.   Are the challenges experienced by the students in ICT influenced by previous experience on ICT?
3.   Are the challenges experienced in facilitation by the students influenced by gender?
4.   Are problems experienced by the students in facilitation influenced by their age?
5.   To what extent will programme of study influence the challenges the students experience in the course materials?

Hypotheses

Five null hypotheses were formulated and tested at 0.05 alpha level:

1. Challenges experienced by the students in ICT are not significantly influenced by their gender
2. Challenges experienced by the students in ICT are not significantly influenced by their previous experience in ICT
3. Challenges experienced in facilitation by the students are not significantly influenced by their gender
4. Challenges experienced by the students in facilitation are not significantly influenced by their age
5. Programme of study will not have significant influence on the problems experienced by the students in course materials.

Methodology

Research Design

This study is a descriptive survey design which does not involve the manipulation of the situation, circumstances or experience of the participants, it rather analyses the situations the way there are.

Population and Sample

The population of the study is the students of Ibadan Study Centre. A total of nine hundred and forty (940) students consisting five hundred and four male and four hundred and thirty-six female who filled the student counsellors' ledger correctly were purposively used as the sample for this study. The respondents mean (x) age was 28.6 and age ranged from 18 to 61 while the standard deviation (SD) was 9.67. The distribution of the respondents according to their programme of study is as follows:

• School of Science and Technology, 22%
• School of Education, 25%
• School of Arts and Social Sciences, 25%
• School of Law 10% and
• School of Business and Management Sciences, 18% .

Study Site

Ibadan Study Centre is the study site. It is one of the first generation study centres of the National Open University of Nigeria established in 2003 along with twenty-one others spread across the federation. The centre is situated in Sango area of Ibadan, the capital of Oyo state. It is currently occupying former SDP political secretariat. Ibadan Study Centre has six units namely: The Directors office, Counselling unit, Administrative unit, ICT unit, Bursary' unit and Library unit. At present, Ibadan Study Centre has over seven thousand students registered for certificate, diploma, degree and post graduate programmes of the university.

Four hundred students who accurately filled the counsellors' daily ledgers out of over a thousand entries were purposively used as the samples for this study.

Instrumentation

The data for this study was collected from the ledgers kept by the three student counsellors in Ibadan Study Centre. The ledger has seven columns namely name, age, gender, programme of study, residential or office address, GSM number and purpose of visit. Test experts in the Department of Measurement and Evaluation at the University of Ibadan, after several reviews, confirmed that the instrument has both face and content validity to measure the variables of study. Reliability test yielded a Cronbach alpha of 0.67 which is considered high to conclude that the instrument is reliable.

Data Analysis

Data obtained from the study were analysed using descriptive statistics and Chi-square test of independency. Chi square tests the hypothesis that the row and column variables in a cross-tabulation are independent.

Limitations of the Study

The major limitation of this study is that it is a non- randomised study. Only the students who filled the ledger were purposively used out of over seven thousand students in Ibadan Study Centre. Moreover, the instrument

was not pilot-tested before use. Therefore, the generalisation of the findings from this study to other NOUN centres should be done with caution. Nevertheless, the study has a lot of methodological strength on the basis of which recommendations were made.

Results

Hypothesis one

The first hypothesis which predicted that the challenges experienced by the students in ICT are not significantly influenced by their gender was rejected at 0.05 level of significance. The results are presented in Tables 1.1 and 1, 2 below.

Table 1.1:   Cross- Tabulation of Challenges Experienced by the Students in ICT by Gender

Cross-tabulation

Count

	NUMBER OF ICT PROBLEMS					
	0	1	2	3	4	Total
GENDER FEMALE	47	299	66	24	0	436
MALE	63	337	84	12	8	504
Total	110	636	150	36	8	940

Key: T1 - online TMA 2 -E-examination 3 - Dropping of courses not taken after examination; T4 - downloading course materials online

Table 1.2:   Chi-Square Test of Challenges Experienced by the Students in ICT by Gender

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.911	4	.008
Likelihood Ratio	17.017	4	
N of Valid Cases	940		.002

Table 1.2 above shows that the x^2 calculated value 13.911 is greater than the table value 0.711 at 0.05 level of significance. The null hypothesis is

therefore rejected. It implies therefore, that the challenges experienced by students on information and communication technology are significantly influenced by their gender.

Hypothesis Two

Hypothesis two stated that the challenges experienced by the students in ICT are not significantly influenced by their previous experience in computer use. The results are presented in Tables 2.1 and 2.2 below.

Table 2.1:   **Cross-Tabulation of Challenges Experienced by the Students in ICT by Previous Experience**

Cross-tabulation

Count

	NUMBER OF ICT PROBLEMS					
	0	1	2	3	4	Total
COURSE ART	25	148	50	12	0	235
	34	137	30	8	0	209
EDU	30	109	21	4	8	172
LAW	4	68	15	4	0	91
SCI	17	174	34	8	0	233
Total	110	636	150	36	8	940

Table 2.2:   **Chi -Square Tests of Challenges Experienced by the Students in ICT by Previous Experience**

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.757	16	.000
Likelihood Ratio	56.867	16	.000
N of Valid Cases	940		

Table 2.2 above shows that students' previous experience in computer use has significant influence on the challenges experienced in ICT, since x" calculated=64.75> x^2 tabulated=7.96 at 0.05 level of significance, the null hypothesis is rejected. It implies therefore, that the challenges experienced by the students in Information and Communication Technology are influenced by their previous experience in computer use.

Hypothesis Three

The third hypothesis which predicted that the challenges experienced by the students in facilitation are not significantly influenced by their gender was rejected at 0.05 level of significance. The results are presented in Tables 3.1 and 3.2 below.

Table 3.1: Cross -Tabulation Challenges Experienced by the Students in Facilitation by Gender

Cross-tabulation

Count

	NUMBER OF FACILITATION PROBLEMS EXPERIENCED				
	0	1	2	3	Total
GENDER FEMALE	119	272	37	8	436
MALE	143	285	76	0	504
Total	262	557	113	8	940

Key: Fl - inadequate facilitator for registered courses; f2 - Non facilitation of courses due to policy, f3 - presence of uncommitted facilitators

Table 3.2: Chi-Square Tests on Challenges Experienced by the Students in Facilitation by Gender

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.143	3	.000
Likelihood Ratio	22.413	3	.000
N of Valid Cases	940		

Table 3.2 above shows that students' gender has significant influence on the challenges experienced in facilitation since x calculated=19.143> x^2 tabulated=0.35 at 0.05 level of significance, the null hypothesis is rejected. It implies therefore, that the challenges experienced by students in facilitation are significantly influenced by their gender.

Hypothesis Four

The fourth hypothesis which predicted that problems experienced by the students in facilitation are not significantly influenced by their age was rejected at 0.05 level of significance. The results are presented in Tables 4.1and 4.2 below.

Table 4.1:   Cross-Tabulation of Challenges Experienced by the Students in Facilitation by Age

Cross-tabulation

Count

	NUMBER OF FACILITATION PROBLEMS EXPERIENCED				
	0	1	2	3	Total
Age Group 10-20	53	96	29	0	178
21 -30	143	281	52	4	480
31 -40	38	84	8	0	130
41 - 50	28	72	20	4	124
51 and above	0	24	4	0	28
Total	262	557	113	8	940

Table 4.2:   Chi- Square Test of Challenges Experienced by the Students in Facilitation by Age

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.787	12	.001
Likelihood Ratio	42.064	12	.000
Linear-by-Linear Association	5.318	1	.021
N of Valid Cases	940		

Table 4.2 above shows that age has significant influence on the challenges related to facilitation since x^2 calculated=34.78> x^2 tabulated=5.23 at 0.05 level of significance. The null hypothesis is therefore, rejected. It implies that the challenges experienced by students in facilitation are significantly influenced by their age.

Hypothesis five

The fifth hypothesis which predicted that problems experienced by students in course materials are independent of their programmes of study was rejected at 0.05 level of significance. The results are presented in Tables 5,1 and 5.2 below.

Table 5.1:   Cross-Tabulation of Challenges Experienced by the Students in Course Materials

Count

		NUMBER OF COURSE MATERIAL PROBLEMS EXPERIENCED			
		0	1	2	Total
COURSE	ART	65	127	43	235
OF STUDY	BIZ	71	117	21	209
	EDU	67	85	20	172
	LAW	27	59	5	91
	SCI	74	125	34	233
Total		304	513	123	940

Key: 1 - Non availability of course materials; 2 - Errors on printed materials; 3 - poor quality of materials

Table 5.2:   Chi-Square Tests of Challenges Experienced by the Students in Course Materials

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.077	8	.021
Likelihood Ratio	18.658		.017
N of Valid Cases	940	8	

Table 5.2 above shows that the programme of study has significant influence on the problems experienced by students in course materials since x" calculated=18.077> x^2 tabulated= at 0.05 level of significance. The null hypothesis is therefore, rejected. It implies therefore that the

programme of study has significant influence on the challenges experienced by students in course materials.

Discussion

This study examined the influence of age, gender and programme of study on the challenges experienced by students of Ibadan Study Centre in ICT, course materials and face-to-face contacts (facilitation). Five hypotheses were formulated based on the reviewed literature. The first hypothesis which predicted that the challenges experienced by the students in ICT are not significantly influenced by their gender was rejected at 0.05 level of significance. The results as shown in Table 1.2 revealed that the students' gender has significant influence on the problems experienced by the students in ICT. The male respondents in the study have less ICT- related problems than their female counterpart. The finding is plausible because as early as the 1980s, researchers had suggested the mediating effect of gender on attitudes and perceptions towards information technology.

It corroborates previous reports (Teo *et al.,* 1997; Tremblay, 2010; Ford, *et al.,* 2001) who found gender differences in internet usage and webinformation- seeking behaviours. This outcome can be attributed to several reasons, such as biological factors (Buss, 1995), gender role attitudes (Fisher and Arnold, 1994), information processing pattern (Shashaani, 1993), socio economic factors (Bimber, 2000) and socialisation (Whitley, 1997). On the contrary, Koohang (1986), Sacks *et al.,* (1994), Dyck & Smither (1994) found that neither age nor gender was seriously correlated to computer usage and anxiety; instead, previous experience in computer related courses did.

Similarly, the second hypothesis which stated that the challenges experienced by the students in ICT are not significantly influenced by their previous experience in ICT was rejected at 0.05 level of significance. Previous experiences in computer - related courses were found to have a significant influence on the students' problems in ICT. This outcome is in agreement with the research work of Koohang (1986); Sacks *et al.* (1994) and Dyck & Smither (1994).The finding is plausible; there is the possibility of transferring learning and skills from one task to the other. So students who have taken courses in computer- related areas would not

find online TMAs and e-examination as challenging as those who are coming into contact with the computer and internet.

The third hypothesis which predicted that the challenges experienced by the students in facilitation are not significantly influenced by their gender was rejected at 0.05 level of significance. The results as presented in Table 3.2 show that the female students experienced more facilitation- related problems than their male counterpart. This contradicts Knox's (1977) report that age, gender, family, work, community roles; physical condition; personality; and earning interests affect the ability and willingness to participate in tutorial or face-to-face contact. Possible reason for this finding could be that all the learners, irrespective of gender, are grappling with ODL mode of study which is relatively new in Nigeria.

The fourth hypothesis which predicted that the problems experienced by the students in facilitation are not significantly influenced by their age was rejected at 0.05 level of significance. The results in Table 4.1 show that 59% of students in the age range of 21 to 30 years are more concerned with inadequacy of facilitators unlike the older students (41 years and above) who considered facilitation less important. The presence of uncommitted facilitator is the least of the students' problems as shown in Table 4.1. This corroborates findings of Boero, Laureti and Naylor (2005) who reported that gender and age are principal determinants of the probability of dropping out from ODL. They also observed that older students as typified by their marital status have lesser challenges coping with academic activities in ODL than younger and non-married students. This confirms previous speculations that many of the learners come to NOUN with conventional education experience from primary and secondary and have been exposed to the learning culture of full time face-to- face encounter; a learning situation where the learner depends on the teacher for knowledge. Obviously, the younger students lack experience as independent, self-directed learner which makes them to expect facilitation/ teaching in all courses; a situation that is similar to what is obtainable in the conventional university system.

The fifth hypothesis which predicted that the problems experienced by students in course materials are independent of their programmes of study was rejected at 0.05 level of significance. The finding contradicts Ojo *et al.* (2006) who used the quality of course materials as an index to compare

the attitudes and perceptions of 120 randomly selected male and female students of NOUN and the National Teachers' Institute (NTI). The result shows that irrespective of programme of study, 55 % rated the quality of the materials better than lesson notes of the conventional university. However, Olubiyi *et al.* (2008) reported that 86.3 % of students admitted in 2003/2004 in NOUN withdrew from their programmes due mainly to course materials- related problems.

Conclusion

Unlike in the conventional university system where the learners have homogeneous characteristics in terms of age, level of aspirations, motivation, values and interests, learners in NOUN have a very wide variety of differences in background and concerns; yet are within one institution. Many of them report feelings of isolation, lack of ICT skill, course materials, boredom and lack of self-direction and eventual decrease in motivation levels. All these can impede learning or lead to attrition. One would be justified in saying that one of the most potent forces shaping the 21st century is the new Information and Communication Technologies.

Their revolutionary impact affects the way we live, learn, work, and spend our leisure time, and communicate. While ICTs and the Internet offer vast, new and unprecedented opportunities for human development and empowerment especially in education, there is a need for web designers and policy makers to reflect gender differences in beliefs, attitudes, technological abilities in computer and internet usage in designing programmes for students.

To have a sustainable learning outcome in open and distance learning, the university management must ensure that all required course materials are produced in sufficient quantity and quality. There is also a need to make them available to students when needed. This is to prevent them from downloading course materials after making payments in the bank. The findings of this study behoove student counsellors to adopt proactive counselling strategies to remove all the psychological, emotional and social barriers that could militate against the students from becoming self - reliant and actualised individuals in the society.

Recommendations

Based on the findings of this study the following recommendations are made:

1. To help students especially the older ones acquire the skills for e-TMA and e-examination, counsellors in collaboration with the centre directors should organise workshops/ seminars bi-monthly for both returning and fresh students. The workshop should involve both the male and female students from the planning stage to implementation and evaluation

2. The student counsellors should adopt proactive counselling techniques to reduce students' attrition rate. Proactive counselling involves providing online counselling services through chatting on yahoo messenger and following up the students through face book (FB), sending bulk messages through the internet (e.g. www.dudumobile.com).

3. To prevent the issue of ''java error ''during e-exam, the university should also work towards having its own exam facilities and install high powered antivirus software on it. Moreover, more ICT staff should be posted to the study centres to assist in resolving ICT-related problems

4. There is a need to upload all the students Tutor-Marked Assignments for at least two weeks before the onset of examination. This will assist them to prepare properly for the examination by knowing the format of the examination

5. Students' results for every session should be posted on the notice board without their matriculation numbers. The purpose is to so enable them to compare their individual performance with that of the group

6. NOUN management should ensure the availability of all 1st and 2nd year course materials before taking off. Similarly, courses without course materials should be put on hold

7. The portal should be updated and reviewed to avoid a situation whereby students who are not qualified are admitted while those who are qualified would be denied admission

8. The university should review its policy of conducting facilitation in courses with a minimum of 50 students. Facilitation should be

conducted in all courses irrespective of number of registered students

9. Examination in some courses should be done on paper and pencil to stimulate students' creativity and analytical minds.

References

Anderson, T. (2003b). Modes of Interaction in Distance Education: Recent Developments and Research Questions. Th: D. M. Moore (Ed.). *Handbook of Distance Education* (pp. 129-144). Mahwah, NJ: Erlbaum.

Ayo, C. K. Akinyemi, I.O. Adebiyi, A.A & Ekong, U.O. (2007). "The prospects of e-examination implementation in Nigeria", *Turkish Online Journal of Distance Education,* 8.4: 125-134.

Blurton, C. (2007). "New Directions of ICT-Use in Education" http://www.unesco.org/education/educprog/lwf7dl/edict.pdf. Retrieved 2007-02-06. ICT in Education

Bimber, B. (2000). Measuring the Gender Gap on the Internet. *Social Science Quarterly,* 81,3: 868-876.

Boero, G., Laureti, T., & Naylor, R. (2005). An econometric analysis of student withdrawal and progression in post-reform Italian universities. Centro Ricerche Economiche Nord Sud - *CRENoS Working Paper 2005/04.*

Buss, D. M. (1995). Evolutionary Psychology: A New Paradigm for Psychological Science. *Psychological Inquiry,* 6, 1-30.

Cheesman, J., Simpson,N.,& Wint, A. (2006). Determinants of student performance at university:reflections from the Caribbean, [Online] Available: http://www.mona.uwi.edu/opair/research/student-performance-paper-revised.pdf

Commonwealth of Learning (2004). *Planning and Implementing Open and Distance Learning Systems'.* A handbook for decision makers.

Dambrot, F. H., Watkins-Malek, M. A. Silling, S. M., Marshall, R. S., & Garver, J. A. (1985). Correlates of Sex Differences in Attitudes toward and Involvement with Computers. *Journal of Vocational Behavior,* 27, 71-86.

Dekkers, J. (2000). *Using technologies for open education — the realities and planning for its use in a developing country,* Paper presented at the Bangladesh.

Dyck, J.L. & Smitter, J.A. (1994). Age Difference in Computer Anxiety: the Role of Computer Experience, Gender and Education. *Journal of Education Computing Research,* 10(3) 239-248.

Federal Ministry of Education (2002). *Blueprint and implementation plan for the national open and distance learning programmes.* Abuja.

Fischer, E., & Arnold, S.J. (1994). Sex, Gender Identity, Gender Role Attitudes and Consumer Behaviour. *Psychology and Marketing,* 163-82.

Ford, N., Miller, D., & Moss, N. (2001). The Role of Individual Difference in Internet Searching; An Empirical Study. *Journal of the American Society for Information Science and Technology,* 52, 1210-49-1066.

Garrison, D. R., Anderson, T. & Archer, W. (2000). Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education. *The Internet and Higher Education 2,* 2: 87-105.

Holmberg, B. (1983). Guided Didactic Conversation in Distance Education. *hr.* S. D. Keegan & B. Holmberg (Eds.). *Distance Education: International Perspectives* (pp. 114-127). London: Croom-Helm.

Honeyman, M., Miller, G. (December 1993). "Agriculture distance education: A valid alternative for higher education?" *Proceedings of the 20th Annual National Agricultural Education Research Meeting-.* 67-73.

Ipaye. Babatunde (2007). "National Open University of Nigeria: A gateway to an egalitarian society. Guest speech at the 4th Annual Public Service Lecture organized by the National Forum of Heads of Federal Establishments, Oyo State Chapter, Ibadan, 20th November 2007

Kearsley, G. (2002). Is Online Learning for Everybody? *Education Technology,* 42.1: 41 -44.

Knowles, M. (1980). *The Modern Practice of Adult Education: From Pedagody to Androgogy.* Chicago: Follett Publishers.

Knox, A. (1977). *Adult Learning and Development.* San Francisco: Jossey-Bass

Koohang, A.A. (1986). Effects of Age, Gender, College Status, and Computer Experience on Attitude towards Library Computer Systems (LCS). *Library and Information Research.* 8:349-355.

Miyazoe, T., & Anderson, T. (2010). The Interaction Equivalency Theorem. *Journal of Interactive Online Learning* (in press).

Moore, M. G. (1989). Editorial: Three types of interaction. *The American Journal of Distance Education, 3,2:* 1 -7.

Moore, M. G. (1993). Theory of Transactional Distance. *In:* D. Keegan (Ed.). *Theoretical Principles of Distance Education* (pp. 22-38). London and New York: Rutledge.

Moore, M. G. (1991). Distance Education Theory. *The American Journal of Distance Education* 5 (3). http://www.ajde.com/Contents/vol5 _3.htm# editorial (accessed November 14. 2011).

Ojo, D.O., & Olakulehin, F.K. (2006). Attitudes and Perceptions of Students to Open and Distance Learning in Nigeria. *International Review of Research in Open and Distance Learning,* 7: 1.

Olgren, C. (2004). Reasons for attrition. Distance education certificate program. University of Wisconsin-Madison. Retrieved: December 3, 2007 from http://uwmad.courses.wisconsin.edu/d21/tools/files/ accessFile.asp?file-6847687&code=641915067

Olubiyi, A. A., & Inegbedion, J. (2008). Solving the Problem of Attrition in an Open and Distance Learning Institution. Retrieved on 6th February, 2012fromhttp://www.nou.edu.ng/noun/acde2008/acde _en/papers.pdf/PUBLICAT10N%20Conference%20Proceedings.p df

Sacks, C.H.,& Bellissimo, Y.J.R. (1994). Attitude towards Computers and Computer Use: the Use of Gender. *Journal of Research on Computing in Education,* 26(2) 256-269.

Shashaani, L. (1993). Gender-based Differences in Attitudes towards Computers. *Computers and Education,* 20,2: 169-181.

Teo, T.S.H., & Lim, V.K.G. (1997). Usage Patterns and Perceptions of the Internet: The Gender Gap. *Equal Opportunities International,* 16.6: 1-8.

Koohang, A. (1987). A Study of the Attitudes of Pre-Service Teachers toward the Use of Computers. *EducationalCommunication and Technology Journal,* 35,3: 145-149.

Tremblay, E. (2010). Educating the Mobile Generation - using personal cell phones as audience response systems in post-secondary science teaching. *Journal of Computers in Mathematics and Science Teaching,* 29:217-227. Chesapeake, VA: AACE." http://editlib.Org/p/32314. Retrieved 2011-11-05.

UNDP (1995). *Human Development Report* (1995). New York, NY: Oxford University Press.