

The Implementation of Distance Learning Programme at the National Open University of Nigeria (NOUN): A Case Study

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Abstract

With a student population of over 180,000 (as at 2013), the National Open University of Nigeria (NOUN) is no doubt a leading higher education institution in Nigeria. NOUN's student enrolment figure is by far higher than enrolment figures in well over 20 private universities put together in Nigeria. It is among the first four leading institutions that have significantly enhanced access into higher education institutions in Nigeria. The implementation of a distance learning programme in a territorially large country like Nigeria is a big challenge. NOUN has taken bold steps in the implementation of its distance learning programme since its establishment. For example, it has many study centres all over the country towards expanding access. However, the quality of learning and graduates produced by the distance learning institutions in Nigeria has remained a controversial issue among stakeholders in the education sector. The aim of this study was to assess the extent to which NOUN has effectively implemented its Distance learning programme. A descriptive survey design was employed to execute the study. A stratified random sampling technique was used to select 140 respondents out of a population of 2,500 students. Structured questionnaire was the main instrument used for data collection. Both descriptive and inferential statistics were used to analyze the data collected. The findings among others revealed that instructional process used in NOUN was effective; the educational resources were not adequate and satisfactory and the quality of assessment and feedback mechanism used in NOUN was high. However, the various schools significantly differed with respect to the quality of assessment and feedback mechanism used in NOUN. It was therefore recommended among others, that NOUN should enhance its ICT capability in its instructional process and that quality and equity should be the guiding principles behind all learning assessment.

Keywords: Open universities, Distance learning, educational programme implementation, Instructional process, Learning assessment,

1. Introduction

The aim of expanding access into higher institutions in Nigeria has indeed remained unachieved despite government's efforts at increasing the number of universities. As at the 2013, there was a total number of 129 universities (made up of 40 federal universities, 39 state government-owned universities, and 50 private universities). The demand for admission into these universities was far more than their carrying capacities. Through government's policy at expanding access into universities, the development and growth of private universities has not helped in reducing the problem of admission crisis into Nigerian universities (both public and private). The National Open University of Nigeria (NOUN) was established to provide functional, cost-effective, and flexible learning education in order to address the persisting problem of access. In its operation so far, it has significantly helped to enhance access into higher education institutions in Nigeria. According to Ramon-Yusuf (2011) the Open and Distance Learning (ODL) was projected to provide access to about 200,000 students by 2013 in Nigeria. However, NOUN was able to provide access to over 180,000 by 2013 and this could be considered a tremendous improvement at increasing access through distance learning (Tenebe 2013).

However, there have been concerns and arguments among stakeholders on the quality of graduates being churned out by distance learning institutions. This issue of quality might account for one reason the demand for admission into the conventional universities still remains very high. The provision and implementation of distance learning programme by NOUN in a territorially large country like Nigeria no doubt, is indeed a herculean and challenging task. The goals of open and distance learning institutions are however complex and multifaceted. Specifically, for NOUN to effectively attain its major objectives, (such as providing flexible but qualitative education, enhancing education for all and lifelong learning, providing a wider access to education generally but specifically university education in Nigeria), there is need for provision of instructional strategies that are very effective; educational resources that are adequate; a quality assessment and feedback mechanism,

among other enabling factors that can enhance overall learning process and performance of the students.

The attainment of the overall goals of NOUN depends largely on the capacity of the management to effectively and efficiently harness the implementation components of the teaching-learning processes in the entire fifty study centres nationwide. The aim of this study therefore is to ascertain the extent to which NOUN has successfully implemented its programmes with respect to: effectiveness of its instructional process, adequacy and satisfactory level of its educational resources, and the quality of assessment and feedback mechanisms employed. It is also aimed at providing relevant policy measures towards improving the quality of services offered by NOUN.

To do this, the paper is therefore divided into seven sections. The first section is the introduction. The second section discusses the conceptual framework of Open and Distance Learning in Lifelong perspective. Section three gives a brief global review of the implementation processes of distance learning institutions with specific reference to NOUN. Section four presents the methodological procedure. Section five provides a presentation and analysis of data. Section six discusses the results and finally section seven gives the policy implications.

2. Open and Distance Learning: A Lifelong Perspective

All over the world, access into higher education remains a big issue and various governments have been trying to reduce this problem through Open and Distance Learning (ODL). Open and distance education is a channel for widening access to mass education. It 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 setting such as the classroom. Distance learning refers to situations in which learners are physically separated from the educational provider, communicating in writing (by postal mail, e-mail, fax, or computer conferencing), verbally (by telephone, audio conferencing or video conferencing), or in periodic tutorial sessions (Perraton 1988; Lockwood and Goolesy 2000). According to Holmborg (1986), distance education includes the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless, benefits from the planning, guidance and tuition of a tutorial organisation. For Keegan (1996), distance education refers to an educational approach in which there is a quasi separation of the learner and the teacher in time and space. In distance education, the instructor and the instructional strategy/methods are subsumed into the learning material (popularly referred to as Study Materials), that have been designed as a self-directed learning guide for the student.

The term 'Open Learning,' on the other hand, refers to the philosophical construct that seeks to remove barriers and constraints that may prevent learners from accessing and succeeding in quality lifelong education. Among the many definitions of the concept by authorities, one common factor appears to be the use of media to enable the time and geographical separation of the teaching process from learning process. In Nigeria, the objectives of ODL are to widen access to education; ensure equity and equality of opportunities; enhance education for all and lifelong learning; provide flexible but qualitative education; reduce cost and admission inconveniencies; and entrench a global learning culture (Okoronkwo 2010).

Open and Distance learning has passed through series of stages. As Kyando (2011) pointed out, it evolved over time into the sophisticated fifth generation. This generation he said, takes advantage of Information Communication Technology (ICT) revolution, which is a catalytic element of globalisation. According to him, the first generation of ODL evolved as the Correspondence model, followed by Multi-media model. The third stage was the Tele-learning model while the fourth stage is the Flexible learning model. Some radical changes that have been witnessed since the era of globalisation include the increasing emphasis on lifelong learning and the growth in open universities. The advent of the ICT has therefore contributed to the changes in the nature of higher education over the past few decades.

For Keith (1999), the revolution witnessed in lifelong learning in many countries in the second half of the 20th century was largely engineered by the massification of education through open universities. These institutions were inspired by democratization, growing demands for tertiary education, technological developments well suited to mass education and the human resources needs of modernizing societies. Distance education has become an important policy option for educational planners in developing countries. In the context of Nigeria, increasing population, growing national demand for education, dwindling financial resources, increasing fiscal

constraints, unemployment and problem of access in conventional universities have created high demand and option for distance education via the Open University. However, Jegede (2003) argued that for distance education as it is known today in Nigeria, its birth is traceable to the quest for Nigerians struggle to obtain qualification through higher education for social and occupational mobility.

The three major forces that act in concert to generate interest in, and need for lifelong learning in Nigeria are the rapidity and constancy for change, the continuous march by many adults towards occupational obsolescence and change in lifestyles or value systems affecting so many people (Olojede, et al 2008). These changes no doubt have grave consequences for the implementation strategies of Open University institutions if the objectives aimed at the promotion of lifelong learning in higher institutions of distance learning are to be attained.

3. Open Universities and Programme Implementation

The National Open University of Nigeria (NOUN) is the first fully fledged university that operates in an exclusively open and distance learning (ODL) mode of education in Nigeria. NOUN was first established on 22nd July, 1983 by an Act of the National Assembly and later abolished on 25th July, 1984. It was resuscitated by the Obasanjo Administration in 2002 and started operation in 2003. Today, it has fifty study centres scattered all over the federation where tutorial facilitations are carried out face-to-face by appointed part-time facilitators. The centres serve as multimedia delivery routes, as well as centres where students can submit and collect tutor marked assignments and use information communication technology facilities for a variety of learning purposes. NOUN reflects a novel development in the provision of higher education in Nigeria. The Federal Government of Nigeria (2004) has over the years recognised the place of open and distance learning in achieving lifelong education and affirms that lifelong education shall be the basis of the nation's education policy.

Teaching and learning in NOUN is carried out through print and electronic media. Printed materials remain a major instructional mode and are supported by other electronic communication technology media. The Open University of Malaysia utilizes the blended approach that combines printed learning materials as the main learning resource supplemented by face-to-face interactions at regional centres and online learning through a specially designed Learning Management System (LMS) (Seyed et al 2005). This system, according to Seyed et al (2005), has an important feature of the asynchronous forum board incorporated into it. The provision of the asynchronous forum board allows empowerment of a geographically dispersed group of students to participate in a collaborative learning environment with tutors and peers. At Indira Gandhi National Open University, there is a combination of Information Communication Technology with educational T.V and community radio for reaching out (Srivathsan 2009). For instructional process to be effective in any distance learning programme, it has to have in built activities which according to Beaudoin (1990) should involve:

- ❖ coaching students throughout the learning process;
- ❖ focusing on the instructional process in addition to the educational content;
- ❖ encouraging students to be active learner;
- ❖ designing and guiding experiences and activities; and
- ❖ providing explanations, references and reinforcement.

These notwithstanding, the goal to overcome the time and distance issues involved in distance learning require the use of various forms of technology in the delivery process. Of utmost importance is the overall institutional support for the effective delivery of instruction.

Educational resources and support services in open universities are indispensable tools needed for the effective implementation of distance learning programmes. These resources include both the infrastructural facilities available at the study centres for various programmes, the human resources and material resources that will facilitate effective instructional delivery through various media. The universities have primary responsibilities for making their resources and services available to its users regardless of physical location. Open universities should have adequate infrastructural design and this Howard et al (2004) pointed out should include all the elements of the environment that impact the teaching and learning experiences of faculties and students and the staff supporting these experiences. Therefore, the management identifies, develops, coordinates, implements, and assesses these resources and services to ensure their adequacy and satisfaction so as to meet the needs of the tutors and learners. Access to library, counselling and other educational resources and services should be an integral part of the educational experience of distance learners. This no doubt, would enhance the quality of learning experiences offered to distant learners which is often reflected in the overall learning outcome.

The process of teaching and learning cannot be complete unless there is assessment of learning outcome. Learner assessment is central to every instructional process. For assessment to be meaningful and useful to the learner, it requires quality feedback. As Srivathsan (2009) rightly pointed out, a critical requirement in any good education system is the regular feedback it should provide to learners while engaging them in well designed learning activities and tests. This enables students get better sense of what areas they have mastered, what areas they are weak in, and allows them to focus their efforts where they are weakest. For Russell (1998), the provision of feedback to distance learning students is particularly important because students have farer opportunities to ask for clarification on assignment or comments about assignments. Chetwynd and Dobbyn (2011) equally affirmed that in higher education, there is general agreement on the crucial role of assessment and the feedback students are given on it.

According to Nicol (2008) and Race (2009), they argued that it is at Level 1 at the university that effective feedback is most necessary for motivation, empowerment, retention and the development of self-critical learning skills. Effective feedback on assessment is nowhere more important than in distance education courses, where comments on assignments may be the principal or even the only learning communication between tutor and student (Simpson 2002). For feedback to be effective there is need for appropriate process. Nicol and Macfarlane (2004) highlighted the characteristics necessary for feedback to be effective. In these seven principles of good feedback practice, they revealed that these principles are based on a cognitive model of student self-regulation which:

- help clarify what good performance is (goals, criteria, expected standards)
- facilitate the development of self-assessment (reflection) in learning;

- deliver high quality information to students about their learning;
- encourage teacher and peer dialogue around learning;
- encourage positive motivational beliefs and self-esteem;

- provide opportunities to close the gap between current and desired performance; and
- provide information to teachers that can be used to help shape learning.

It is generally recognized that a timely and effective feedback on assessment is essential for learning. Again, it recognized that open and distant learning is more or less technologically driven, which can be used for assessment exercises. As UCTL (2006) pointed out, packages like WebCT are useful tools in assessment exercises, while Reju et al (2008) demonstrated how Learning Content Management System (LCMS) can be utilized for online assessment.

At NOUN, there are three types of assessments for a particular course for each student. There is the Self-Assessment exercise within each unit of study, there is the Tutor Marked Assignments (TMAs) and then the End of semester face-to-face examination including project work or practical hands-on sessions (NOUN 2006). In spite of this system of formative/summative assessment, Okonkwo (2010) in her study, found out that there are challenges associated with NOUN's assessment of students learning outcomes. She argued that the manpower related challenges coupled with the large number of students and numerous courses offered by NOUN as open and distance learning institution make assessment very cumbersome and an administrative nightmare. Making assessment feedback effective should be seen as a responsibility that should be shared by the student, tutor and the institution. Effective feedback based on the principles listed by Nicol (2007) should enable students develop the academic skills for self-regulated learning. Okonkwo (2010) rightly pointed out that feedback is used to influence new ways of engaging the learner with the learning task and is important in modelling the full assessment system for lifelong learning.

4. Research Procedures

The study made use of a descriptive survey design. The Minna study centre of NOUN was selected as a case study based on its closeness to the Federal Capital Territory of Nigeria. Minna in Niger State of Nigeria is located about 98km away from the Federal Capital Territory Abuja. The Minna study centre has a population of about 2,500 registered learners in the five schools (Faculties) of the university. Out of this population a representative sample of 140 was selected: namely, Arts & Social Sciences 21 (15%), Business & Human Resources 35 (25.0%), Education 57 (40.7%), Law 7 (5.0%), and Science & Technology 20 (14.3%). Based on stratified random sampling, the total sample of 140, had 92 (65.7%) students as males while 48 (34.3%)

are females. The total number of postgraduate students was 69 (49%) while undergraduate students were 71 (50.7%). The figure randomly sampled is a reflection of the population of students admitted in each school. A four-point scaled structured questionnaire was administered to the respondents enrolled in NOUN programmes at Minna Centre cover three key areas, namely, effectiveness of instructional process; adequacy and satisfactory level of educational resources; and quality of assessment and feedback mechanism. The responses ranged from strongly agree (SA), through agree (A), disagree (D), to strongly disagree (SD).

Analysis of data involved both descriptive and inferential statistical tools. Percentages and means were used to analyze the fundamental research questions, while ANOVA was used for testing the hypotheses examined by the study. The analysis of data was organized within the framework of the key research questions. The questions are (a) how effective is the instructional process of NOUN in the implementation of distance learning programme? (b) to what extent are the educational resources at NOUN adequate and satisfactory in implementing distance learning programme? and (c) what is the level of quality of assessment and feedback mechanism employed at NOUN in implementing distance learning programme?

Decision Rule

The Decision Rule which is applicable to the results of all the Research Questions involves a range of mean scores and their interpretations (i.e. effectiveness, extent and level depending on the response pattern of the questions.

Mean Score	Interpretation
3.5 - 4.0	Very Effective/Very High Extent/Very High
2.5 - 3.4	Effective/High Extent/High Level
1.5 - 2.4	Not Effective/Low Extent/Low Level
1.0 – 1.4	Not very effective/Not very High/Very Low

5. Results

Research Question 1: *How effective is the instructional process of NOUN in the implementation of distance learning programme?*

The responses on the effectiveness of the instructional process was subjected to a mean score analysis which is presented in the table 1.1 below.

Table 1 : Mean score table of effectiveness of the instructional process
N= 140

S/No. Statements	SA (4)	A (3)	D (2)	SD (1)	FX	\bar{X}	Decision
1.NOUN delivery methods are effective in understanding lecture topics	28	87	18	7	416	2.97	Effective
2. The presentation of delivery of course materials through prints are effective in learning	39	83	11	7	434	3.10	Effective
3. The use of audio tapes, videotapes, CD-ROMs as instructional modes are effective in teaching and learning process	37	61	28	14	401	2.86	Effective
4.The use of radio and television broadcasts as instructional modes are effective in teaching learning process	20	70	33	17	373	2.66	Effective
5.The contact periods between instructors and learners are adequate to understand the knowledge being impacted	16	76	37	11	377	2.69	Effective
6.Regularity of visits by instructors during contact periods makes learning effective	32	86	18	4	426	3.04	Effective
7.Tutorial sessions organized by instructors are effective in the teaching learning process	37	84	16	3	435	3.11	Effective
8. NOUN's instructional process creates a flexible, interactive and student centred learning environment	35	69	27	9	410	2.93	Effective

Overall average Mean= 2.92

Table 1. reveals that the overall average Mean of the respondents is 2.92. Based on decision rule, this means that the respondents are of the opinion that the instructional process of NOUN in implementing distance learning is effective.

Research Question 2: To what extent are the educational resources at NOUN adequate and satisfactory in implementing distance learning programme?

The responses on the adequacy and satisfactory level of educational resources was subjected to a mean score analysis which is presented in the table 2.

Table 2: Mean score table of adequacy and satisfactory level of educational resources used at NOUN
N=140

S/No.	Statements	SA (4)	A (3)	D (2)	SD (1)	FX	\bar{X}	Decision
1.	The number of instructors in my programme is adequate for effective teaching and learning	13	60	50	17	349	2.49	High extent
2.	The instructors used in my programme are competent in the instructional delivery process	26	88	14	12	408	2.91	High extent
3.	The course materials provided by instructors in my programme are adequate and satisfactory in meeting my needs as a learner	36	66	24	14	404	2.89	High extent
4.	The regularity and timely supply of course materials in my programme are satisfactory	6	37	75	22	287	2.05	Low extent
5.	Library services provided for students are adequate and satisfactory	2	17	88	33	268	1.91	Low extent
6.	Counselling services provided for students are adequate and satisfactory in meeting their needs	34	69	19	18	399	2.85	High extent
7.	Study centres are adequately equipped and conducive for learning	6	32	78	24	300	2.14	Low extent

Overall average Mean=2.46

Table 2 reveals that the overall average Mean is 2.46 which in qualitative terms falls under the mean range of **low extent**. This therefore implies that the educational resources at NOUN are not adequate and satisfactory in implementing distance learning programme.

Research Question 3: What is the level of quality of assessment and feedback mechanism employed at NOUN in implementing distance learning programme?

To answer this question, the responses on quality of assessment and feedback mechanism was subjected to a mean score analysis which is presented in the table 3.

Table 3: Mean score table of Quality of assessment and feedback mechanism at NOUN

N= 140

S/No. Statements	SA (4)	A (3)	D (2)	SD (1)	FX	\bar{X}	Decision
1.Timely and adequate information are provided before examinations and assignments are administered	27	79	21	13	400	2.86	High level
2.Examination materials are always well secured	53	71	11	5	452	3.23	High level
3.Examination results reflect a fair and satisfactory assessment	25	87	17	11	404	2.90	High level
4.Examination results are promptly communicated to students	20	79	29	12	387	2.76	High level
5.Marked assignments are promptly returned	11	45	71	13	334	2.39	Low level
6.Number of assignments given are adequate	33	83	18	6	490	3.50	Very high level
7.Feedback process to students is satisfactory	13	49	64	14	341	2.44	Low level
8.Feedback process encourages drop-out of students from the programme	18	38	56	28	326	2.33	Low level

Overall average Mean =2.80

Table 3 shows that the overall average Mean of the respondents is 2.80 which qualitatively falls within the mean range of **high level**. This implies that the quality of assessment and feedback mechanism used at NOUN in implementing distance learning programme is high.

5.1. Test of Hypothesis

Hypothesis 1: First hypothesis is on whether there is a significant difference in the mean responses of students in various schools regarding the effectiveness of the instructional process of NOUN in implementing distance learning programmes. The respondents' opinion was subjected to an ANOVA test using the following null hypothesis:

H₀: There is no significant difference in the mean responses of students in the various schools regarding the effectiveness of the instructional process of NOUN in implementing distance learning programmes.

Table 4: Table showing the descriptive statistics of the effectiveness of the instructional process of NOUN in the five schools

Groups	Count	Sum	Average	Variance
School of science and Technology	20	47	2.35	0.56
School of Business and human	35	90	2.57	0.78
School of Education	57	144	2.53	0.79
School of Art	21	45	2.14	0.63
School of law	7	21	3	1

Table 5: ANOVA Result of the effectiveness of Instructional Process of NOUN in implementing distance learning programmes in the five schools

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	5.032331	4	1.258083	1.700054	0.153604	2.438739
Within Groups	99.90338	135	0.740025			
Total	104.9357	139				

Remark: $f_{cal} = 1.70$, $f_{0.05, 4, 135} = 2.44$, since $f_{cal} < f_{0.05, 4, 135}$ and $p - value = 0.102$, the null hypothesis is being accepted.

Interpretation: The descriptive statistics and ANOVA table provided above indicate that there is no significant difference in the mean responses of the students in various schools regarding the effectiveness of the instructional process of NOUN in implementing distance learning programmes ($f_{cal} = 1.70$, $f_{0.05, 4, 135} = 2.44$ and $p - value = 0.153$). This decision was taken due to the fact that the calculated F of 1.70 is less than the critical F value of 2.44 at 0.05 level of significance with (4, 135) degree of freedom while the $p - value$ of 0.153 is greater than 0.05. A statistical judgment from this result is that the null hypothesis which states that “there is no significant difference in the effectiveness of the instructional process of NOUN in implementing distance learning programmes among the five schools” is being accepted as shown in tables 4 and 5.

Hypothesis 2: The second hypothesis is on whether there is a significant difference in the mean responses of students in various schools regarding the adequacy and level of satisfaction of educational resources at NOUN for implementing distance learning programmes. The responses were subjected to an ANOVA test using the following null hypothesis:

H₀: There is no significant difference in the mean responses of students in the various schools regarding the adequacy and level of satisfaction of educational resources at NOUN for implementing distance learning programmes.

Table 6 Table showing the Descriptive statistics of the adequacy and level of satisfaction of educational resources in the five schools

Groups	Count	Sum	Average	Variance
School of science and Technology	20	39	1.95	0.37
School of Business and human	35	68	1.94	0.23
School of Education	57	126	2.21	0.70
School of Art	21	51	2.43	0.86
School of law	7	16	2.29	0.24

Table 7: ANOVA result of the adequacy and level of satisfaction of educational resources at NOUN effectiveness in implementing distance in the five schools

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	4.26203	4	1.065508	1.973681	0.102031	2.438739
Within Groups	72.88083	135	0.539858			
Total	77.14286	139				

Remark: $f_{cal} = 1.97$, $f_{0.05, 4, 135} = 2.44$, since $f_{cal} < f_{0.05, 4, 135}$ and $p - value = 0.102$, the null hypothesis is being accepted.

Interpretation: The descriptive statistics and ANOVA table provided above indicate that there is no significant difference in the mean responses of the students in various schools regarding the adequacy and level of satisfaction of educational resources at NOUN for implementing distance learning programmes ($f_{cal} = 1.97$, $f_{0.05, 4, 135} = 2.44$ and $p - value = 0.102$). This decision was taken due to the fact that the calculated F of 1.97 is less

than the critical F value of 2.44 at 0.05 level of significance with (4, 135) degree of freedom while the p – value of 0.102 is greater than 0.05. A statistical judgment from this result is that the null hypothesis which states that “there is no significant difference in the mean responses of the students in various schools regarding the adequacy and level of satisfaction of educational resources at NOUN for implementing distance learning programme” is being accepted as shown in tables 6 and 7.

Hypothesis 3: The third hypothesis is on whether there is a significant difference in the mean responses of the students in various schools regarding the level of quality of assessment and feedback mechanism used at NOUN in implementing distance learning programmes. The responses were subjected to an ANOVA test using the following null hypothesis:

H₀: There is no significant difference in the mean responses of the students in various schools regarding the level of quality of assessment and feedback mechanism used at NOUN in implementing distance learning programmes.

Table 8: Table showing the Descriptive statistics of the assessment and feedback Mechanism used at NOUN in the five schools

Groups	Count	Sum	Average	Variance
School of science and Technology	20	47	2.35	0.66
School of Business and human	35	99	2.83	0.44
School of Education	57	165	2.89	0.74
School of Art	21	64	3.05	0.85
School of law	7	25	3.57	0.29

Table 9: ANOVA result of the assessment and feedback mechanism at NOUN in implementing distance learning programme in the five schools

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	9.586341	4	2.396585	3.695202	0.006895	2.438739
Within Groups	87.55652	135	0.648567			
Total	97.14286	139				

Remark: $f_{cal} = 3.69$, $f_{0.05, 4, 135} = 2.44$, since $f_{cal} > f_{0.05, 4, 135}$ and p – value = 0.0068, the null hypothesis is being rejected.

Interpretation: The descriptive statistics and ANOVA table provided above indicate that there is a significant difference in the mean responses of the students in various schools regarding the level of quality of assessment and feedback mechanism used at NOUN in implementing distance learning programmes ($f_{cal} = 3.69$, $f_{0.05, 4, 135} = 2.44$ and p – value = 0.0068). This decision was taken based on the fact that the calculated F of 3.69 is greater than the critical F value of 2.44 at 0.05 level of significant with 4, 135 degree of freedom while the p – value of 0.0068 is less than 0.05. A statistical judgment from this result is that the null hypothesis which states that “there is no significant difference in the mean responses of the students in various schools regarding the level of quality of assessment and feedback mechanism used at NOUN in implementing distance learning programmes” is rejected as shown in tables 8 and 9.

6. Discussion

From the results of the analysis of data, it can be deduced that NOUN’s instructional process is effective in imparting knowledge and skill for promoting lifelong learning. It is also worthy to note that the result showed that the quality of assessment and feedback mechanism was rated high. However, this study also reveals that the educational resources available at NOUN are not adequate and satisfactory in implementing distance learning programme. Furthermore, while the results of the ANOVA indicated a no significant difference among the five schools with respect to the instructional process used and available educational resources provided by the management in implementing distance learning programme, it also reveals that there was a significant difference in the quality of assessment and feedback mechanism employed at NOUN among the five schools.

In the instructional process of distance learning, it is certain that adequate consideration was given to the delivery mode of the course because of the characteristic nature of both the learners and the programme. Distance learning courses are not like traditional face-to-face courses. They require different media, delivery methods, course designing, evaluation methods and learner support structures (COL 1999). The effectiveness of NOUN's instructional process could be as a result of the management's efforts in ensuring that previously prepared instructional materials are augmented with a variety of appropriate learning strategies. In addition, NOUN maintains linkages and collaboration at both national and international levels. At the international level, NOUN maintains links with Open University of the United Kingdom, the Indira Gandhi National Open University, University of Southern Queensland and more importantly benefits from the mentoring roles of the Open University of Hong Kong (NOUN 2006). This must have helped in building the capacities of the tutors and engendered an improvement in the mode of instructional delivery. In addition, instructional delivery methods and technologies are changing and constantly improving the effectiveness of open and distance education.

The findings revealed that the educational resources were not adequate and satisfactory. This could be attributed to inadequate funding which has been a problem hindering provision of adequate resources required for higher education in most developing nations. Eneku & Ojogwu (2006); Rennie & Mason,(2007) maintained that in developing countries, the growth of ODL has been severely deterred due to the lack of technological infrastructure, negative perceptions of online degrees and learning, and unstable socio-political environments. NOUN no doubt is faced with the challenge of providing adequate educational resources that would meet the needs of the learners. For instance, Ohale (2011) reported that students experienced difficulties during examination due to limited computers. It is pertinent to point out that a distance learning institution has the benefit of cost-effectiveness since it can enjoy economies of scale once enough students are enrolled. Thus, the provision of adequate educational resources should not be tied to inadequate funds rather to the administrative competence of the management.

Furthermore, it is interesting to note that the quality of assessment and feedback mechanism used in NOUN was rated high but the findings showed there was significant difference among the various schools with respect to this variable. Effective feedback is an essential part of the distance learning process that enhances the building of independent, self-critical and self-regulating learners. However, several factors could affect the quality of assessment and feedback mechanism used by tutors across disciplines. The perception of tutors and attitudes of students towards assessment and feedback could vary. In addition, Okonkwo's (2010) finding on manpower related challenges, the large number of students and numerous courses offered by NOUN that make assessment very cumbersome and an administrative nightmare, might equally account for the variation among various schools in the quality of assessment and feedback. It should be noted that the learner's feedback is an important indicator to assess course material, andragogy, skills of instructor, relevance of assignments, use of technology, value of a virtual classroom. For most cases, evaluation of a course reveals that learners benefited immensely from the learning process.

7. Policy implication

Open universities have been major growth sector in higher education. This is also true of Nigeria. Based on the findings of this study, we recommend the following towards enabling NOUN become more effective in the implementation of its distance programme necessary for sustainable lifelong learning in Nigeria's higher education system.

NOUN should enhance its ICT capability in its instructional process so as to create a technology- rich learning environment that would engender independent, self critical and self-regulating learners.

To this end, NOUN needs to supplement its printed study materials distributed at study centres across the country with electronic media packages and support system. This will make the learning environment to be more learner-centred and thereby making educational resources and services easily accessible to all learners.

Quality and equity must be the guiding principle behind all learning assessment and academic endeavours. Management should be proactive in addressing the manpower challenge that poses a threat to qualitative assessment and feedback mechanism which was rated high in this study.

The high demand and rapid expansion in distant higher education calls for a more quality based learning through provision of adequate educational resources and infrastructural facilities at the study centres for a more enhanced learning environment.

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