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**Abstract:**

The paper represents a study of students' experience of interactivity in distance education programmes at the National Open University of Nigeria (NOUN). Through surveys and focus groups with students, facilitators, and administrative support staff, we found out that interactivity is a key determinant of student success rate. Majority of the students are workers in the urban areas who combine "work and learn" which is the motto of NOUN. The survey showed that majority of the students depended on their facilitators as key resource persons and on their peers or study groups both for required and voluntary interactivity to reinforce their learning. This was able to reduce loneliness, boredom and loss of community experienced in distance education. Because NOUN has not completed its Repository, Production, Distribution, and Administration Headquarters (REPRODAhq) and equipped the study centers with up-to-date technological facilities, this frustrated accessibility that is dialectically linked to interactivity.

**Keyword:** Interactivity, distance education, NOUN, accessibility

# **Interactivity in distance education: The National Open University of Nigeria (NOUN) experience**

## **Introduction**

A major feature of distance learning systems is interactivity, both between the tutor and the students, and between the students themselves. In some forms of distance education, this is practically non-existent, but in most cases, it is considered important (FME, 2002:37).

Historically, the learning process has taken place with the infrastructure of institutions such as schools, university campuses, technical colleges, etc. The need to be part of such institutions was driven by the notion that to access information and knowledge, a learner had to be present where the teacher was. The first separation between the teacher and the student occurred with correspondence education, which offered information and knowledge mediated by some form of media, usually print. This early form of distance education moved the learning frontiers to the learners' home.

Successful distance education systems involve interactivity between teachers and students, between students and the environment, and among students themselves, as well as active learning in the classroom. Mc Nabb (1994) noted that though students felt that interactivity of distance learning courses far outweighs the lack of dialogue, there is still a considerable lack of dialogue in on-line courses when compared to face-to-face classes. Interactivity takes many forms; it is not just limited to audio and video, or solely to teacher-student interactions. It represents the connectivity the students feel with the distance teachers, aides, counselors, facilitators and their peers. Garrison (1990) argued that the quality and integrity of the educational process depends upon sustained, two-way communication. Without connectivity, distance learning degenerates into the old correspondence course model of independent study. The student becomes autonomous and isolated, procrastinates, and eventually drops out (Sherry, 1996:21). Effective distance education should not be an independent and isolated form of learning; it should approach Keegan's ideal of an authentic learning experience.

The paper seeks to analyse how NOUN distance education has been able to create a sense of community and connection by providing opportunities for students to develop a sense of personality and social presence. Although such commitments are time-consuming in terms of design, preparation, and teaching, they are necessary for student success in distance education (Burge, 1999).

## Review of related literature

Research in the area of distance education has continued to expand in scope because of demands placed on education overtime. Early research focused mainly on comparing measures of learning in traditional face-to-face delivery with a variety of distance delivery platforms. Researchers have now turned their focus to students for perspectives, advices, and insight about their perceived success and satisfaction with distance learning (Cartwright, 2000; Nelson, 1999). Fetherston (2001) has argued that there is need for more research to be focused on pedagogical issues, stating that the Web for instance has the potential to meet the learning need of students if appropriate instructional design strategies are used.

The development of information and communication technology (ICT) and its application to education and training has increasingly allowed institutions to deliver learning in a variety of ways. Now, the choice of venue is driven by, among other things, the ability to access the learning materials using ICT. As many potential learners do not have ICT in their homes, there is need to find alternative ways to access such learning experiences. These technologies have made “the walls of the learning space transparent”, providing a freedom for the learner to explore sources of information outside his institution, even outside his country (OECD, 1994). While ICT has undoubtedly opened new avenues for increased numbers of learners, it has also opened new areas of research focusing on the role of pedagogical processes when using new technologies and their impact on cognition. Such research focus especially in distance learning scenario is on *interactivity*.

According to COL (2000:21), interactivity refers to the ability of the learner to respond in some way to the learning material and obtain feedback on the response. There are two kinds of interactivity. 1) *Learning interactivity* involving the learners' interaction with the medium, the level and the immediacy of feedback the medium will accommodate learners' own input and direction and; 2) *Social interactivity* referring to the extent to which learners' interact with teachers and with each other via a given medium.

Interactivity is a vital learning process. For example, interactivity between students and between the facilitator and students promotes community and connection in the course, creating support systems that facilitates learning (Geer, 2000; Liaw and Huang, 2000). Interactivity between students in the form of group discussions, questions and answer sessions, discussions on Self Assessment Exercises (SAEs) provide learners with a balance view on topics; in this stance, two good heads become better than one. For professional programmes such as Teacher Education, Journalism, Nursing, Law etc, such connections also help to create worldwide networks of connected professionals that allow students to form a strong sense of professional identity.

## The context of the study

The National Open University Act which subsist in the Law of the Federation of Nigeria (1980) Appendix III came into effect on July 22, 1983. After a spell of closure, the University was revitalized and rechristened National Open University of Nigeria (NOUN) in 2002. This has been against the backdrop of the realization that distance education has emerged as an increasingly important policy options for educational planners in developing countries. The adoption of the distance education mode of instruction delivery shows that it is “an educational process in which a significant proportion of the teaching is conducted by ‘someone’ removed in space and time from the learner. The link between that ‘someone’ and the learner is therefore necessarily provided by different means of communication and instruction” (Perraton, 2001). At its commencement, NOUN is expected to operate Community Resource Study Centres, located in all state capitals which will be subsequently and periodically located in as many local government areas.

**Table 1: Location of First Phase of Community Resources and Study Centres.**

<b>North Central</b>	<b>North East</b>	<b>North West</b>	<b>South East</b>	<b>South South</b>	<b>South West</b>
Ilorin	Bauchi	Kano	Akwa	Benin	Akure
Jos	Maiduguri	Katsina	Enugu	Calabar	Ibadan
Kaduna	Yola	Sokoto	Owerri	Port Harcourt	Lagos

All the centres are expected to have Local Area Networks (LAN) with a minimum of 20 computers. The LAN will be connected to the REPRODAHq through the Wide Area Network (WAN), and will allow for the following activities:

- a) Training and learning
- b) Assessment and testing
- c) Interactive sessions
- d) Communications (Email, chat, forums)
- c) Internet access
- d) Access to the Virtual library
- e) Other computer applications.

The LAN is further connected to the national Wide Area Network (WAN) using VSAT solutions for delivery of distance learning to all the study centres. NOUN will also integrate the support services of some existing government owned infrastructural

facilities such as NTA Educational Unit in Tejusho Lagos, and the National Educational Technology Centre (NETC) Kaduna (FME, 2002). At the study centres, Instructional and Tutorial Facilitators, and Student Counselors will be responsible for regular tutorial meetings and regular guidance and counseling services to learners. Fundamentally therefore, interactivity has remained a hallmark of NOUN distance learning programmes.

## **Research Objectives**

A review of the literature pertaining to interactivity in distance education provided the researcher with ideas regarding the areas of focus. The areas and issues of focus were also identified by the researcher from practical involvement in distance education at NOUN since 2003. Among the main objectives of the study were:

- a) to understand how students perceive interactivity in NOUN programmes;
- b) to assess NOUN's institutional framework for enhancing interactivity.

Using surveys and focus groups, data were gathered during the 2004-2005 academic session. Those studied were undergraduate and master's degree students in all the four schools comprising Arts and Social Sciences, Business and Human Resource Management, Education, and Science and Technology. Note that students registered under the Centre for Continuing Education and Workplace Training were not included. Interactivity was defined following Townsend et al., (2002) as the interplay and exchange in which individuals and groups (learner-learner, facilitator-learner) influence each other. Interactivity in distance education refers both to *required interactivity* designed by the instructors as part of a programme and *voluntary interactivity* with facilitators and or students around non-course topics.

## **Methodology**

### **Survey**

Students in the Undergraduate and the Masters programmes were surveyed in March 2005. Results of the survey showed 319 respondents representing a 48% response of the 664 selected student sample. Structured questionnaire were distributed to all the 664 students surveyed. It is acknowledged that a questionnaire is a reasonably reliable method of obtaining factual information from, as well as determining the opinions, feelings and attitude of the people (Kerlinger, 1977; Oppenheim, 1996). The survey included 19 questions in two sections about a) demography – 13 questions; and b) interactivity – 6 questions.

In order to achieve a fair amount of validity and reliability, the questionnaire was pilot tested. It was also assessed by various experts in distance education in NOUN and the National Teacher Institute. Necessary corrections and modifications were made.

### **Focus Groups**

Focus groups Discussions were conducted in-between the pilot testing of the instrument and the actual survey to elicit qualitative response from the students, facilitators and administrative staff following Townsend et al., (2002)) typology. The six focus groups (N = 36) included four with students (total N =20), one with facilitators (N = 8), and one with administrative staff (N = 8). Through purposeful sampling (Depoy and Gitlin, 1998), additional students and staff were selected for investigation. Since interactivity was to be sought in terms of learners perception, staff were not our main concern. However, they had to be included as focus group because the organizational matter in NOUN has an important repercussion on interactivity.

## **Results**

### ***Demographics***

About 80% of the 319 responding students had already completed more than six credit courses by distance. The majority of these (39%) were registered in the School of Arts and Social Sciences and the least (14%) in the School of Education. Ages ranged from 18-58 years. Almost 46% were between 17-35 years and almost 40% were between 36-45. The rest (14%) were between 45-58 years. Most of the 319 respondents (71%) were men. The geographic locations of these students were heavily tilted towards urban dwellers (65%) despite the expectation that NOUN will increase access to higher education for rural dwellers.

Close to 52% of the students were employed full-time, over 24% were employed part-time, and over 24% were unemployed. Most of these students were combining full-time employments and studies. Over 15% studied in the morning, 18% studied on weekends, 25% varied the time and the largest number (42%) did most of their studies in the evening.

Majority of the students, about 86% indicated that they choose to study at NOUN because of its motto: "Work and Learn", and about 40% agreed that NOUN's work tailored programmes attracted them. Yet about 38% admitted that it was because they could not gain admission in conventional universities.

### ***Interactivity***

Two types of interactivity were considered: *required interactivity* that facilitators designed as part of the distance education programme and; *voluntary interactivity* around non-course topics either with or without facilitators' involvement. The survey and focus groups indicated that most courses required interactivity (Table 2 & Table

3). Students and facilitators indicated that if interactivity was not an integral aspect of the course design, the interactivity especially between students would be low. These findings were consistent with those of Nelson (1999); Cartwright (2000); and Townsend et al., (2002). The three forms of interactivity included in the survey were one-on-one with the facilitator, one-on-one or in small groups with the students, and as a full-class group including the facilitator. The role of the group leader, class representative or governor as it is variously known was also emphasized in interactivity. Around 80% experienced a high level of opportunity and helpfulness towards learning through these forms of required interactivity (Table 2). The greatest opportunity and helpfulness in required interactivity was one-on-one with the facilitator and with the full students group and the facilitator.

**Table 2: Distance students rating of opportunity and helpfulness on Required Interaction**

**Required Interactivity**

	Opportunity				Helpfulness			
	<i>N</i>	<i>Great Deal</i>	<i>Average</i>	<i>None</i>	<i>N</i>	<i>Very Much</i>	<i>Average</i>	<i>None</i>
<i>Communication Activity with:</i>		%	%	%		%	%	%
<b>Facilitator Only</b>	315	78	13	9	312	73	16	11
<b>Other Students</b>	315	79	11	10	311	75	18	7
<b>Facilitator &amp; Other Students</b>	315	76	18	6	312	80	17	6

**Table 3: Distance students rating of opportunity and helpfulness on Voluntary Interaction**

**Voluntary Interactivity**

	Opportunity				Helpfulness			
	<i>N</i>	<i>Great Deal</i>	<i>Average</i>	<i>None</i>	<i>N</i>	<i>Very Much</i>	<i>Average</i>	<i>None</i>
<i>Communication Activity with:</i>		%	%	%		%	%	%
<b>Facilitator Only</b>	314	79	14	7	307	72	20	8
<b>Other Students</b>	314	78	16	6	308	74	15	11
<b>Facilitator &amp; Other Students</b>	314	76	15	9	307	76	20	4



In contrast, there were mixed ratings on small group work. Less than 50% of respondents experienced a high level of opportunity and helpfulness, 15% reported at least some opportunity and 80% reported a low level of helpfulness in small group work. Students in the Focus Groups admitted the difficulties of scheduling tutorials in order to suit the time diversities of learners. They admitted that group work is an essential feature in generating a sense of community and interactivity. Most students felt interactivity was encouraged by facilitators through question and answer sessions. Facilitators also encouraged the students to discuss problem specific portions of the course.

Table 3 also shows that almost 80% of students experienced a high level of opportunity and helpfulness in voluntary interactivity. Examples were in exchanges between individual students about their lives, where they live, their work, and discussions, about their performance in the Self Assessment Examinations (SAEs).

Each focus group acknowledged inaccessibility of various technology modes such as Internet/Web based technology, audio and video taping, teleconferencing etc. which the study centers have not provided for the students as an impediment to effective learning; and that access to modern technology would have increased interactivity. Others specifically noted the need to substitute some form of interaction for in-class interaction.

### **Limitation of Study**

Only 8 out of the 24 Study Centers were studied. Therefore, our ability to generalize our findings may miss out salient features present in other study centers. Secondly, focus groups numbers were fairly small and may not be fully representative of those studied.

### **Discussion**

In addition to access which is a long established feature of the success of a distance learner, interactivity has also been shown to affect student success. Ease of accessibility cannot makeup for a lack of opportunity for social or intellectual interactivity. Students who experience a clog in their interaction schedule may feel threatened and isolated (cf Townsend 2000:14). Yet it suffices to note that as much as NOUN recognizes this fact, students will be frustrated if there is extensive interactivity but not easy technological accessibility.

NOUN for instance through its REPRODAhq has commenced uploading its instructional materials on the web ([www.nou.edu.ng](http://www.nou.edu.ng)). The portal is to provide students with accessibility to the best learning environments and ensure interactivity. The Focus Groups Discussion reported a distinct lack of computer skills among students and some of the facilitators; this will certainly handicap their effort specially in doing internet searches. Students report a strong reliance on facilitators to assist them in "working through" the course.

For facilitators, students and administrative staff, time is clearly a major issue in distance education. To design courses that maximize interactivity, Programme Leaders, Course Coordinators, Facilitators and Course writers need to prepare and support students, through creating avenues for interactivity. Students need to manage and structure their time. The time to learn the technology and methods of learning should be encouraged. Consequently, general studies courses such as GST 101 & GST 102 (Use of English and Communication Skills 1 & 2); GST 107 (The Good Study Guide), GST 103 (Study Skills) and CIT 101 (Introduction to Computer) be designed to ensure the pedagogical imperative of learning how to learn with a major thrust on interactivity. Facilitators should also be exposed to the most up-to-date technology that equips them with the technological skills that are useful in a networked learning.

### **Conclusion**

The success of distance learning appears to be crucially dependent upon interactivity. Both the survey response and the Focus Groups have shown a distinctive need for interactivity for success in their programmes. Interactivity and accessibility also reinforce each other and the experience with NOUN shows that though it emphasizes interactivity, it still has a long way to go in ensuring that students are able to access various technology modes. Since many people must collaborate to produce and disseminate quality distance educational programmes that enhance interactivity, the need to plan and coordinate staff is essential. Work on NOUN's REPRODAHq must be completed to ensure that both the learner and the support staff have access to most recent technologies. Equally too, instructional materials should embed interactivity, and facilitators and learners must ensure timely, both synchronous and asynchronous interaction so that students do not grope in the dark.

### **Biodata:**

Mr. Terhemba Nom Ambe-Uva has been with the School of Arts and Social Sciences, National Open University of Nigeria since April, 2003. He holds a BSc and MSc degrees from Benue State University Makurdi, and University of Ibadan respectively. His research interest is in HIV/AIDS education, education and globalization, educating for sustainability, and educational policy and administration. He has also been involved in a number of workshops on course material writing for distance education.

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