INTRODUCTION

One of the major objectives of the Nigerian National policy on Education (2004) is the provision of equal educational opportunities to all citizens at different levels of education. With regard to high education, an aspect of the policy encourages distance learning (education) education that may be received outside the university environment to be organized and delivered by tertiary institutions in Nigeria. While distance education has been in existence for at least 100 years, the medium has changed from pencil and paper correspondence courses to real – time Internet courses. But regardless of the medium, distance courses have common characteristics and, likewise, have similar problems. This literature review examines the different types of distance education and its significance as a learning method. Student demographics are presented and their relevance to distance learning barriers established. For instance, between 1982 and 1997, both the number of universities offering distance learning and undergraduate distance learning programmes have increased. In 1982, only two universities offered distance-learning programmes. In 1997, the number was eight. The number of undergraduate programmes by distance learning rose from 11 to 27 while for the Master’s Degree programme, the number rose from zero to 11. As would be expected, the number of students enrolled in these two programmes rose astronomically over the same period, for the undergraduates it rose from 1,760 in 1980 to 27,690 in 1997. The present study focused on undergraduate programme of distance learning programmes. It is quite conceivable that these quantitative increases have taken their toll on the quality of the programmes the affected universities offer to the students (Abdullahi 1997). The argument for this observation is closely linked with the fact that in the last two decades or so, the human and material resources of Nigerian universities have shown considerable decline in quality, quantity and variety at a time students enrolments, number of academic programmes offered to students, etc have increased in leaps and bounds, both for on-campus academic programmes and out-reach programmes offered outside the campuses. For instance, the numbers of university professors in the different disciplines who have left the university system in Nigeria due to retirement, brain, deaths, etc. have continued to increase from 273 professors in 1982 to 1993 professors in 1995. Similar losses of non-professorial academic staff members have also been reported. (Aduka 1997). In addition, facilities for teaching, learning, research and development have not kept pace with the increased demands arising from large
enrolment numbers, public service functions and university consultancy services.

Some universities, fully aware of these shortcomings, went along to start new distance learning programme at satellite/extension centres. Initially, the introduction of such programmes was seen as one way universities could maximize the use of human and material facilities already in existence at another location, and by doing so, the nation was getting full value for its human and mineral facilities that would have otherwise been idle. While this argument may be theoretically sound, there is no empirical evidence to support its veracity. (Abdullahi 1997). Evidence on the ground need to be documented to ascertain whether this is actually so. In other words, there is need to find out how adequate and satisfactory the facilities are in terms of the number and quality of staff, quality and size of buildings including class-rooms, laboratories and workshops; library facilities, instructional support service such as photocopy and secretarial centres, staff/student ratio, and so on. Furthermore, there are concerns expressed by some educators that the qualities of teaching as well as that of students admitted into the distance learning programmes are poor.

An important foundation of distance education suggests that successful teaching can take place even though teacher and learner are physically separated during the learning process. While this separation can occur in several ways depending on the nature of course content a delivery medium, this paper will not differentiate between non-traditional, electronically mediated and traditional course work. Electronic mediated courses use telephone lines, cables, satellite and micro wave networks to transmit voice, video and data. Most distance education programmes employ a combination of audio visual media to facilitate learning.

**BRIEF HISTORY OF THE TREND OF TERTIARY DISTANCE EDUCATION**

As a view of their aims and objectives illustrates, all first generation universities in Nigeria (University of Ibadan, Ahmadu Bello University (ABU), University of Nigeria Nsukka, and the University of Lagos (UNILAG)) were required to attend to the tertiary education needs of the population, especially within their respective ‘catchments’ areas. Since the Nigerian population was, and still is, mainly rural and agricultural, extension courses were to provide farmers new skills to introduce them new methods. ABU and the University of Ibadan were early providers of such extension services (early to mid 1960s). However, the clientele of the University of Lagos was urban, and extension courses there were geared towards the attainment of university and professional courses. (Nwagu 2001). That University’s Distance Learning Institute is an outgrowth of earlier programmes supported variously and at different time by the International Extension College in London, the Ford Foundation, UNESCO, and other donors. Current-ly and as a part the university’s entrepreneurial thrust, distance education courses contribute significantly to UNILAG’s resources.

At ABU, the need to upgrade teachers’ qualifications and skills became a prime objective since, by the late 1960s and early 1970s; it was obvious that the North part of Nigeria was lagging far behind the rest of Nigeria in this area. Thus, Abu’s Institute of Education introduced the Teacher In-service Education Programme (TISEP) to raise the quantity and quality of teachers in Northern Nigeria. At the end of TISEP studies, candidates sat for Grade III or Grade II Teachers Certificate. Later, when the National Council of Education ruled the National Certificate of Education (NCE) to be the minimum qualification for teaching at primary level, the Institute started the NCE by correspondence programme.

When in 1974, the Head of State (Yakubu Gowon) announced Government’s intention to introduce Universal Primary Education by 1976, it was clear that there was insufficient time to produce the estimated number of teachers to cope with demands of the programme. Distance education was considered the best means of supply the required number of teachers. Simultaneously, in the early 1970s to mid 1980s, distance education was gaining currency internationally as a viable strategy for delivering large-scale educational opportunity. In many countries, especially developing ones, it was seen as a panacea to the challenge of providing education at affordable costs. In Nigeria, this led to the establishment of the National Teachers Institute (NTI).

The NTI was the first institute specially established by Federal Government to provide distance education courses designed to upgrade under-qualified and unqualified teachers. In line with the minimum qualification directive
mentioned above, NTI also introduced the NCE by distance learning in 1990 (Adaku 1997).

Another historical step in Nigerian distance education was the initiative of the civilian government of Shehu Shagari to establish an open University, which was to be based in Abuja. However, for various reasons and considerations, the scheme was scrapped by the following military regime, headed by General Buhari. His Government favoured a dual-mode set-up at the University of Abuja. The Centre for Distance Learning and Continuing Education (CDLCE) was mandated to provide a distance education component for every course that the University of Abuja would provide. However, it was not possible to meet this mandate (Murtagh 2001).

It is pertinent to state here that, despite enthusiasm for distance education in Nigeria’s tertiary institutions, some uncertainties remain about the type, scope, and nature of distance education provision in Nigeria. The respective roles of Government, the NUC and of individual universities remain unresolved. We feel that the success of any programme will, largely, depend on how the various experiences of institutions are shared, modified and integrated.

**Purpose of Distance Education**

In preparing to enter the next century, educators of adults face the challenge of serving a student population and society that is increasingly diverse. Moving into the next century, the adult student population is expected to be the fastest growing segment of higher education and, in fact, older students will constitute the majority. Marrs (1995), in his work, An Analysis of Distant Education and Educational Technology, says that most of higher education will take place off-campus through technological methods of delivery. Distance education is a fact of life for most universities and an increasing number of community colleges, knowing the intrinsic problems and overcoming them will be critical to successful implementation of distance programs on a larger scale in the future.

In distance learning, students and teachers will find themselves playing different roles than is the norm in traditional education. The teacher is no longer the sole source of knowledge but instead becomes a facilitator to support student learning, while the student actively participates in what and how knowledge is imparted. More than any other teaching method, distance learning requires a collaborative effort between student and teacher, unbounded by the traditional limits of time, space, and single-instructor effort.

A great benefit among the Nigerian University system is the wealth of experience that has clearly build up amongst the primary providers of distance education programmes. This wealth of experience provides an excellent platform for development and delivery of new programmes because the lessons learned can assist in determining what paths are suitable and what pitfalls should be avoided. Thus, the purposes of distance education are simply:

1. Institutions see potential for distance education to extend their ability to make educational impact on their communities by expanding their reach and scale of operations.
2. They also regard distance education programmes as strategies to absorb the large numbers of students who cannot currently be placed in face-to-face programmes, as well as some of those currently using facilities on central campuses (because of high levels of demand, Universities in Nigeria are all typically enrolling more students than the physical facilities available can cope with). Institution see distance education as a means of providing education to working students. They also see it as an opportunity to generate income.

**Management of Distance Education**

Management of distance education programme generally appeared to be functioning relatively. The “distance aspect of distance learning takes away much of the social interactions that would be present in traditional learning environments. Every institution running such programme demonstrate evidence of having developed systems to administer students on distance education programme usually independently of mainstream students record-keeping systems. In all cases, these systems have been developed into some form of electronic database. There is also much evidence of systems to allow students to register locally for programme, even where they are required to visit a central campus to receive face-to-face support. Further, some distance providers have come up with innovative strategies for overcoming weakness
in the national postal services creating their own network of materials distribution to get course materials to learners (Carlson 1995).

All providers do however, express concern that student record-keeping systems are predominantly reliant on database developed by people who are no longer at the institution and that expertise to adapt and further develop in these systems do no exist on campus. Importantly, these systems have, more often than not, yet been ‘put through their paces’. So to speak this is because most programmes have not yet gone to scale, thus not requiring the systems to deal with large volumes of students enrolling on programme nationally. As all assessment is usually managed through face-to-face contact, there has not been any requirement to track the progress of student assignment centrally on any significant scale. Likewise, because in most instances, programmes tend to run tutorial sessions from a single, central campus, these administrative systems have not yet had to cope with the complexity of managing a decentralized tutorial support network. The only systems that have had to deal with these kinds of complexities are those of NIT. All of these points suggest that, if significant expansion of distance education delivery is to be possible within the Nigerian University System, investments in building robust administrative systems for distance education, and skills to run these systems, will be a priority. Fortunately, the administrative base that does exist provides a platform off which to build such capacity.

Infact, distance learning is student-centered learning; thus knowing the characteristics and demographics of the distance learners helps us understand the potential barriers to leaning. Although students’ characteristics and needs may not guarantee success in a distance education course or program, it is easy to defend these factors as contributing to success. Additionally, knowledge about student characteristics and motivators help us understand who is likely to participate in distance education and, conversely, why others choose not to participate.

Student motivation has a powerful affect on attrition and completion rates, regardless of institutional setting. Motivators for adult distance students are often different from those of traditional students. Knowles (1980), in explaining the advantages of knowing the learner, believes that learner behavior is influenced by a combination of the learner’s needs plus the learner’s situation and personal characteristics. Knowing these personal characteristics is an important aspect of planning distance learning courseware and strategies. More importantly, knowing the participants can help drive program planning and policy formation, factors that are important to participation and success in distance learning.

Knox’s (1977) developmental-stage orientation of adult life stresses the importance of understanding an individual’s contextual situation, that is, he believes their family, work, and community roles; physical condition; personality; and earning interests all affect the adult’s ability and willingness to participate in adult education. Further complicating the issue, deterrence to participation is exasperated by a prospective student’s perception of the magnitude of his problems. In other words, “deterrents” is a multidimensional concept. No single factor appears to cause nonparticipation; however, individual student characteristics and life circumstances appear to have the greatest impact on participation (Kerka 1986).

**Characteristic of Distance Education**

A noble feature of distance education provision in the university system is that individual provider tend predominantly still to operate in isolation from one another. In some respects, this is not surprising. After all, they are competitions. However, there are some areas where individually providers are clearly struggling to establish effective distance education delivery infrastructure, most notably in the areas of material production distribution of resources and establishment and maintenance of decentralized tutorial networks (Carlson 1995). One believes distance education would benefit from greater co-ordination and sharing of resources amongst providers and that this could be managed in such a way as not to remove competition where it makes sense. It is pleasing to note that discussion about such co-operation have already begun between the university of Abuja and NTI.

**Barriers in Distance Learning**

There are various barriers affecting distant learning in Nigeria and in other places in the world such as: lack of staff training in course development and technology, lack of support for distance
learning in general and inadequate faculty selection for distance learning courses. Sometimes the coursework for traditional and distance students is the same. Often it is not. There can be a lot of up front effort in designing distance learning material. This can impose a burden on teachers who already have material for traditional classrooms. Computers, video equipment, communications software, and the like, present challenges and frustrations. Faculty must know how to use these technologies if they are to teach distance courses. Training students and staff, particularly in troubleshooting problems, is imperative to success in technical distance learning (Galusha 2009).

Perhaps the biggest problem for distance programs is the lack of support by the faculty. The endorsement by department faculty is viewed as a critical instructional element in any distance education program. More than any other participant, faculty roles must change the most in administering distance learning programs. This can be difficult adjustment for some teachers. They must change teaching styles to that of a mentor, tutor, and facilitator. They must meet the needs of distance students without face-to-face contact. Since the majority of distance learners are adults, teachers may need to change their teaching style. This may be challenging for teachers who are used to teaching with 18 to 22-year-olds. Faculty is responsible for changing their course content to accommodate diverse student needs and expectations (Meacham 1989). So long as college faculty feels there is a burden associated the distance education program currently in place, there will be little support for expanding distance education opportunities. There are a number of reasons for this lack of support.

Teachers may lack the basic skills or hardware to fully participate in distance education. The advent of computers, telecommunications, and the World Wide Web provides an unprecedented opportunity for faculty and students to learn in a cooperative environment. It is interesting to note, however, that students respond to this changing environment more adeptly than teachers do. At California State University, for example, more than 50% of the student body own home computers while less than 50% of the faculty (Syllabus Magazine 1996). Obtaining proper equipment and training is critical in teacher acceptance of distance learning. Another problem perceived by faculty is the threat to tenure and human resource staffing. Depending on the school and the academic department, courses taught as part of a distance program may not always count toward tenure considerations, thus causing a disincentive for participation by some non-tenured faculty (Oaks 1996). Additionally, if one professor can serve thousands of students there will obviously be fewer professors and fewer departments and faculties. Schools must not underestimate this resistance and should be very aware of the possibility of overburdening faculty and staff.

Teachers also have problems respecting the academics of distance courses. One way of enhancing commitment is by forcing distance courses through the same approval process as on-campus courses. In 1994, Chou wrote, “By going through the same stringent approval process as on-campus courses, the acceptance...among college faculty is enhanced”. The final barrier is the teacher’s acceptance of distance learning programs. Teachers with enthusiasm for this non-traditional coursework are best suited to teach them. One way to mitigate these potentially serious problems is by selecting teachers who are relatively senior people, good teachers, like the idea of distance learning and want to participate in it. Interest and motivation are not success factors reserved only for the student.

Challenges of Distance Education

Distance education has faced numerous challenges in implementation during its decades history. First, distance education provision constitutes a very small component of higher education provision within the federal education system. Second, the two dual-mode institutions at Lagos and Abuja seems encumbered by existing rules and traditions. Third, it appears that the main motivation for offering the variants of distance education described above is financial. Under such conditions, the quality and revaluation of distance education course materials and practices tend to stay static or decline over time (Aghenta 1993).

Problems and barriers encountered by the student fall into several distinct categories; costs and motivators, feedback and teacher contact, student support and services, alienation and isolation, lack of experience, and training.

More so than traditional students, distance
learners are more likely to have insecurities about learning (Knapper 1988). These insecurities are founded in personal and school related issues such as financial costs of study, disruption of family life, perceived irrelevance of their studies and lack of support from employers. These pressures often result in higher dropout rates than among traditional students (Sweet 1986).

A second area of concern for the distance student is the perceived lack of feedback or contact with the teacher. Because there is not daily or weekly face to face contact with teachers, students may have trouble in self-evaluation. Keegan (1986) believes that the separation of student and teacher imposed by distance removes a vital “link” of communication between these two parties. The link must be restored through overt institutional efforts so that the teaching-learning transaction may be “reintegrated” (Keegan 1986, p. 120). Citing Tinto (1975), Keegan hypothesized that students who did not receive adequate reintegration measures such as electronic or telephone communication, would be less likely to experience complete academic and social integration into institutional life. Consequently, such students would be more likely to drop out (Sheets 1992).

These barriers can be mitigated through technological methods such as e-mail. Computer conferencing and electronic mail can be integrated into the delivery of the course to provide the missing interactivity. Because both are essentially asynchronous, they continue to leave the student in charge of setting his or her own work times — a critical success factor for the distance student. It is important that the student receive prompt feedback in any institutional setting, particularly in distance learning where the learner is impaired by the lack of casual contact with the teacher and other students. This is especially important for those students who live outside metropolitan areas. They may not have access to reliable telecommunications, computers, and postal mail. The frustrations resulting from problems with communication between student and academic institution are factors of which distance education planners should be well aware (Wood 1996).

A third area of concern for distance students is the lack of support and services such as providing tutors, academic planners and schedulers, and technical assistance. The isolation that results from the distance learning process can complicate the learning process for adult students. Support for distance learners should not be overlooked when planning distance programs. Students need tutors and academic planners to help them complete courses on time and to act as a support system when stress becomes a problem. Planners from Washington State University (WSU) note that “student services are a significant part of the budgeted costs of the program.” They also believe that “success in attracting, serving, and retaining students will hinge more on excellent student support services than on any technology issues.” (Oaks 1996). Technology costs and considerations can be a source of budgeting problems; however, student support for distance learners should take precedence.

A fourth problem area is the feelings of alienation and isolation reported by distance students. Students of all kinds want to be part of a larger school community, and simply a member of a “correspondence” course. For many traditional students, this is an important part of their social lives.

Another problem encountered by students is the lack of student training, particularly in reference to technical issues. Many adult students are not well versed in the uses of technology such as computers and the Internet. Using electronic medium in distance learning can inadvertently exclude students who lack computer or writing skills. These skills are required if computer technology is used. Students will typically be offered volumes of electronic-based information. Using this information will be a problem for some non-technical students. They must be taught how to manage, not only their study time, but the materials presented as well.

If students are undertaking distance learning courses that require knowledge of computers, then the students must be taught, at a minimum, the fundamentals of operating the system of choice of the distance-taught course. If distance learning is to be successful, technical barriers must be made a non-issue.

**Overcoming the Challenges**

Distance educators readily identified problems in provision of telecommunications, electricity, and postal services as impediment to their work. Problems with delivery of national infrastructure continue to affect delivery of distance education,
but this problem is not necessarily debilitating. Better co-ordination of institutional efforts to overcome these problems would be likely to lead to significantly savings over time, and ensure that distance education delivery was not unduly affected by national infrastructural limitation.

Distance education via simultaneous two-way audio-visual interaction systems such as video teleconferencing, brings an additional set of issues to be considered by the instructor and effective models for this delivery system need to be identified (Sweet 1986).

Some students, particularly those without home computers with modems could have difficulty communicating with the university or teacher. Lack of adequate hardware and the subsequent cost barrier of obtaining equipment could place undue hardship on some remote students. However, implementing other communications systems (phone, mail, etc.) could help overcome this barrier.

Learning institutions must develop distance learning course material or pay a hefty price to order materials from distributors. For some institutions, the investment in production technology may be worth the cost; however, a significant investment is necessary for production facilities, equipment, and personnel to produce videotapes. Using the Internet instead can overcome some of this problem but it poses additional difficulties in insuring all students have adequate access to the Internet.

The Internet is proving to be an effective delivery medium that enables communication of knowledge at the student’s convenience. It has the potential, in fact, to change the nature of distance learning. But it is not without problems. Some fear the existing world wide tele-communications network is ill-equipped to handle the rapid expansion of the Internet. Relying solely on the Internet for courseware and communications transmission is risky. In addition, using the Internet can degrade of the quality of interactions between and among staff and students. Due to the perceived anonymity provided by the Internet, abusive behavior could become a problem; however, these problems can be mediated with proper care and regulation.

The newest of the technological challenges lies in complying with government regulations. Course content may need to be limited based on the requirements in the decency section of the 1996 Telecommunications Act (Oaks 1996). This section describes material deemed suitable for the Internet. Some courses, such as Anthropology or Human Sexuality, may not be appropriate for the Internet. Distance learning institutions must be aware of, and plan for, regulatory issues if the Internet is used for conveying course content.

Certainly not all distance courses use the Internet. Other technologies present ergonomic problems. For distance programs that implement video teleconferencing techniques, the physical environment and equipment set up is important. Because a classroom is often a noisy place, sensitive microphone equipment and non-sound absorbing rooms can seriously diminish the sound quality. Likewise, inadequate lighting and improper camera placement can diminish the video quality. Some experimentation may be needed to solve these ergonomic problems.

On the whole it may be evaluated from the present study that although distance learning is not new, it has not received respect in the academic community because of the number and seriousness of problems presented here. The dramatic growth of the adult learner population is making distance learning an increasingly popular choice of learning techniques. Further study of student demographics and motivators will help target the adult learner population and will help institutions develop course materials and techniques appropriately. Close scrutiny of the intrinsic problems in distance education will help overcome problems encountered by students and faculty. Understanding and mitigating technology problems are important, especially with the rapid expansion of technology. Further research into course development techniques will help learning institutions understand which methods work best in the distance learning classroom.

CONCLUSION

Ever since, Nigeria has always been convinced that education is a tool for empowering his people and the best legacy any nation can bequeath to its citizenry. The Universal Declaration of Human right (1948) stipulates the right of every citizen to education. This may not be possible only via our traditional face-to-face education. Distance education has to be encouraged, financed and promoted.

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