
UNIT 1 UNDERSTANDING DISTANCE EDUCATION IN AFRICA

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1.0 OBJECTIVES

After studying this Unit, you should be able to:

- discuss and elaborate the basic concepts and practices that are widely used by distance education practitioners across the world;
- examine how and why most of these concepts and practices are relevant to the African continent and its people, and to their human capital development strategies;
- analyse and argue how the good practices that can make distance education systems effective and sustainable in the African context; and
- explain the role that Information and communication technologies can play in promoting distance education systems.

1.1 INTRODUCTION

While discussing various aspects of distance education throughout this course, we come back again and again to the definition of various concepts in distance education. At the risk of being repetitive, we do so

with the purpose of placing these concepts in the context of the issues and situations under discussion. Redundancy is a critical element in didactic practice and we hope that repetition will help you capture the nuances and subtleties of the usage of various terms in distance education.

All forms of education have certain universality in their structures, processes and practices. Distance education is no exception. Nevertheless, the manner in which a particular form of education finds its place within a national system and the ways in which it influences the policies and practices that particular governments follow for the development of their educational systems do vary from country to country, and from continent to continent. Europe as a continent has several developed countries that have their own independent systems of education, each with its own unique character and style. Africa, on the other hand, is a continent of over 50 countries, most of which have a common legacy; all of them were colonies with no significant educational infrastructure and systems. All of them needed to build their education systems from scratch, and in doing so, they had to adopt and adapt what suited them best and fairly quickly. In the process, African countries have a mix of everything, ranging from the best of the European models to the more practical native variations. It is in this milieu that we have to place distance education theories and practices to understand what they mean to Africa and its people. In the following sections of this Unit, we shall try to explore the content and meaning of the nature of distance education in the African context.

1.2 THE NATURE OF DISTANCE EDUCATION– SOME KEY CONCEPTS

Early distance education endeavours in Africa covered a range of applications, from formal degree programmes offered by University of South Africa (UNISA) from 1946 onwards to a broadly based adult education campaign conducted by the Institute of Adult Education (University of Tanzania) during the 1960's. Initially, UNISA relied mainly on printed materials issued in the “correspondence” model with minimal contact, while the Tanzanian project used a combination of radio, printed pamphlets and community-based group work.

Community and Adult Education programmes through distance education using radio were very common in several counties in Africa. The INADES Foundation, established in 1962 in Cote d'Ivoire as a private initiative was later extended to Burkina Faso, Togo, Democratic Republic of Congo, Cameroon, Burundi, Chad, Rwanda and Zaire (this was initially confined to French speaking Africa), and to Ethiopia and Kenya. The programmes offered by this institution were mainly in Agriculture and allied fields. It also helped local communities engage in development initiatives through project formulation, etc.

More recent projects covered a similar range of target audiences and programme types, with one of the most significant changes over the last fifty years being the increasing range and complexity of delivery modes, as more and more ICT options became available. Interactive Radio Instruction (IRI) and community radio were the major instruments that helped this growth.

There are some individual case studies that provide interesting information about the early days of distance education in Africa, but there are not enough rigorous comparative studies. Policy makers and

those who take decisions require empirically based knowledge of what works (Gourley 2004). This clearly points to a need for a research plan as a foundation for the realization of the potential of open learning and distance education in Africa. Such research would enable the development of the necessary critical mass to address the common development challenges of Africa (Asmal 2004). Although at present there is little evidence of such research, the material presented at conferences and other occasional papers and articles help to deepen our understanding of distance education in Africa, some good practice in its provision, and its relevance to Africa.

1.2.1 What is Open Learning in the African Context?

The distinction drawn between open learning and distance education is fundamental to our understanding of the African context. While open learning refers to a philosophy of educational practice, distance education refers to the methodology. The **Issue Paper** for the Conference of African Education Ministers on Open and Distance Learning held at Cape Town, South Africa in February 2004 (All-Africa Ministers' Conference on Open Learning and Distance Education (AAMCOLDE) , (2004, February1): (<http://www.africaodl.org./conference/odl.htm>) defined the two concepts in the following terms:

“Open learning can be defined as ‘an approach or philosophy’ which combines the principles of learner-centeredness, lifelong learning, flexibility of learning provision, removal of barriers to access learning, recognition of prior learning experience, provision of learning support, construction of learning programmes in the expectation that learners can succeed, and the maintenance of rigorous quality assurance over the design of learning materials and support systems. Open learning is applicable to all education practice. We know that conventional education practices are marked by certain definite characteristics. Nearly all of them require well defined educational attainments at the level of entry to each stage; they have a pre-determined duration; the curricula are determined in advance and generally do not permit any combinations that students might prefer; they require the physical presence of students at prescribed hours for specified periods; and most of the programmes are teacher-centric. In other words, the formal system has over a period of time acquired certain rigidities with regard to its structures and processes; access was limited to the extent that physical infrastructure permitted; and it had the attributes associated with selectivity and elitism. Open learning marked a decisive break from these rigidities, and it literally opened the doors of formal education to all irrespective of their previous educational attainments, their physical location, the choice of programmes one wished to pursue, and the rigidities of timelines in the completion of studies. The learners moved centre stage, and programmes of education were built around their choices and expectations.

1.2.2 What is Distance Education for Africa?

Distance education is used to describe learning activities in which the characteristics listed above are important. In distance education there is a separation of teacher and learner, and such learning usually involves the use of mixed media courseware with different modalities for learner support. Distance education is unique as it encourages a more flexible learner-centric approach and provides opportunities for learning anywhere and anytime.”

Africa's diversity is evident in the ways in which the principles of open learning and distance education are applied. It would be unwise to suggest that any single model for distance education will work on this continent. Models need to be designed to meet local needs. However, it would be worthwhile to identify certain essentials that deserve closer consideration by those concerned with policy making, the design and development of distance education projects, and their funding and effective implementation. We shall try to take a look at some of these issues in this Block.

1.2.3 Open and Distance Education: Implications for Africa

One of the core issues concerning the changing nature of distance education has to do with the increasing emphasis being given to face-to-face tuition and mentoring in the design of distance education programmes. This is an essential characteristic of distance education techniques as applied to technical and vocational education and training, and to adult education in a community context. At the same time, contact students are making more extensive use of ICT's to access information without a teacher having to be physically present. Different views on this apparent convergence of distance and face-to-face (contact) education are reflected in the recent distance education discourse.

According to Robert Ensor of the Institute for Social Studies (Netherlands), "in formulating ICT policy, it is perhaps best to break with the dualism of distance and regular contact education and regard methods of education delivery as a continuum from purely independent study, through guided collaborative online independent study at a distance (with occasional face-to-face support) to extensive face-to-face tuition where immediate interaction is essential". Prof. Saleem Badat of the Council on Higher Education (South Africa) provides another perspective: "The continuum of education provision can be used to describe a range of educational practice in which educational provision can be located based on its mix of methods. The greater use there is of educational methods that assume temporal and/or spatial separation between students and educators, the more this provision will tend towards the distance education pole of the continuum. The more direct contact between educators and learners, the more it will tend towards the face-to-face pole. The reality is that all educational provision exists somewhere on this continuum, but cannot be placed strictly at either pole."

What does it signify for the African countries? As we noted earlier, the population strength of most countries is not very large. Most of them will not be able to sustain dedicated open learning and distance education institutions. The choice will necessarily be to promote a mixed mode of educational provision in which conventional face-to-face programmes for a small number of students coexist with distance education programmes that can enrol large numbers. We shall have occasion to come back to this issue later in this Block.

1.2.4 Convergence, Flexible Learning and Other Concepts

Convergence is a term that we hear a great deal about these days. As we have just noted, convergence of modes of delivery, that is, mixed use of distance delivery techniques and face-to-face instruction in all education is one type. The other is the convergence of technologies in which multimedia instructional packages that combine text, voice and image make a powerful tool in the delivery of education. These tools are

being used increasingly in conventional education too. It would be useful to keep this distinction between the two concepts of convergence in view. As distance education systems evolve and widen their range of delivery technologies, policy makers at the national level in most countries will have to address the issue of convergence, in order to determine the place of distance education in their overall educational systems, and the allocation of resources for distance education institutions and projects on the one hand, and to the entire education system for technology applications, on the other.

We had discussed elsewhere in this course a major global paradigm shift in educational theory and practice that began in the 1960s. Emergence of education as a development indicator and transformation of higher education into mass education were two major features of the new paradigm. These global changes also coincided with the liberation era in Africa. Perhaps, it was a sign of the times, and the emergence of democracy in Africa, that the more authoritarian teacher-dominated transmission models of education began to move towards models where teacher and student jointly constructed meaning and understanding. That was the beginning of the process of **learner-centred education** that placed African learners and their needs at the centre of the educational process. Learner-centeredness tries to build the real needs of the learner into the design of course and the provision of face-to-face support at the learning centres through study groups, discussion groups and other techniques. Successful examples of learner-centred practices across the educational spectrum are reported from Nigeria (Mohammed & Ismaila); Kenya (Limozi); Ghana, Kenya, Tanzania Uganda, Zambia (Siaciwena) and South Africa (Pityana). Effective implementation of this approach requires new ways of thinking about the physical location of resources needed to provide quality distance education, as well as about the educational process itself. The key to self-sufficiency and sustainability in distance education, as in many other endeavours, is control and possession of the necessary material and human resources.

Flexibility is another concept that is often used in all discussions on education. Apparently, it has to do with the transformation that we have just noted. Over centuries, the formal system had acquired rigidities of all kinds. Course combinations, entry qualifications, age and other admission requirements, all got frozen in time. Higher education became an almost exclusive privilege. Democratisation of education which, in fact, is inclusive education required that the system opened up. That marked the beginning of building flexibilities into the system itself. The open learning approach, supported by distance education techniques, allowed for a new flexibility in the learning experience that responded to the needs of non-traditional learners. And distance education systems began to evolve from its initial postal education version to the present **flexible learning model**. The major features of this model are:

- It applies to teaching and learning wherever they occur on-campus, off-campus and cross-campus;
- It frees up the place, time and methods as well as the pace of teaching and learning;
- It is learner-centred rather than teacher-centred;
- It helps students to become independent lifelong learners;
- It changes the role of the teacher who becomes a mentor and facilitator of learning.

Prof. Gajraj Dhanarajan, the former CEO of the Commonwealth of Learning had referred to the recent tendency for many learners to enter university later in their lives. These new students are most likely to be employed: although not on campus they are seeking to enhance their vocational skills. They require flexibility with regard to place, time, mode and pace of learning, as well as a curriculum that will meet their lifelong needs. But flexibility is not just about the providers loosening up a bit. Together with the freedom created by such flexibility goes the responsibility for students to take charge of their own learning.

The discussion so far leads us to the conclusion that flexibility is the core of open learning and distance education; it is also the nexus between the two. It creates significant opportunities as most African governments strive towards the attainment of the Millennium Development Goals. African distance education systems are poised to take on these challenges, become more flexible, and even more innovative in customizing good distance education practices to meet the needs of their countries.

Check Your Progress 1

Notes: a) Space is given below for your answers.

b) Check your answers with those given at the end of this unit.

i) Comment on the different models of Distance Education in operation today. (Answer in about 100 words.)

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ii) What are the features that distinguish open learning from distance education? (Answer in about 100 words.)

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1.3 THE RELEVANCE OF DISTANCE EDUCATION IN AFRICA

Africa has a long way to go to catch up with most of the developing countries. Most countries in the continent are always at the bottom of the Human Development Index brought out by the UNDP every year. In fulfilling the goals of Education For All (EFA) and the Millennium Development Goals (MDGs), African countries have a long way to go. They continue to suffer from acute shortages of trained teachers to expand and sustain their primary education systems. The drop out ratios from primary education is very high. The transition to secondary education

stage is therefore very low. Tertiary education systems in many countries are in very bad shape. How is Africa going to fill these enormous gaps in their educational provision? What are the policy options available to them? We shall examine some of these crucial issues in the sections that follow.

1.3.1 Education and Development

It is all too often said that education is the means for development. The Millennium Development Goals adopted in 2000 at the General Assembly of all Heads of State and Government list eight goals:

- End poverty and hunger
- Universal education
- Gender equality
- Child health
- Maternal health
- Combat HIV/AIDS
- Environmental sustainability
- Global partnership

The development campaign focuses on poverty reduction, education, health, women's equality and environment. These are interrelated goals; each one of them depends on each other.

Well, these are the elements of the campaign for development. But what is development? Is it simply reducing poverty and improving health and environment? Or, has it a deeper meaning? Nobel Prize winner Amartya Sen provides a new way of thinking about development. For him, development is about freedom. What measures development is the degree by which people's freedom is enhanced. There are many kinds of freedom: freedom from hunger; freedom from poverty; freedom of expression and freedom of religion; freedom of choice and freedom of political participation. Without freedom, there is no development. It is only the free agency of people that can lead to development. It is people who develop families, communities, societies and nations. Free people acting as free agents develop better. Development enhances freedom of people and people enhance development; development and freedom thus feed on each other.

Amartya Sen argues that while classical economic theories of development focused on human capital, the human capability argument places freedom of people at the centre of development. The human capital argument favoured education, learning and skill formation as means for people to become more productive, and contributing more to the process of economic expansion. The perspective of human capability focuses, on the one hand, on the ability – the substantive freedom – of people to lead the lives they have reason to value and to enhance the real choices they have. While economic prosperity helps people to have wider options and to lead more fulfilling lives, so do more education, better health care, finer medical attention, and other factors that causally influence the effective freedom that people actually enjoy. These “social developments” must directly count as “developmental”, since they help us to lead loner, freer and more fruitful lives (Development as Freedom, Amartya Sen, Oxford University Press, 2000).

1.3.2 Policies and Politics

In his keynote address to the Education Ministers' Conference on ODL at Cape Town in 2004, titled "*Prospects, possibilities and perils: Distance Education responds to Africa's development needs*", Prof. Kader Asmal, South Africa's Minister of Education at that time offered a different perspective while listing the promises of ODL in the following terms:

- It enhances access to education
- It is cost-efficient in that increased enrolment does not necessarily mean an increase in staff or physical infrastructure
- It promotes quality through the development and provision of learning resources.
- It facilitates lifelong learning of under-qualified and unqualified teachers.

He had a word of caution as well; these promises could easily be negated by bad practices. He emphasised the "need to explore and interrogate the promise and claim that open learning and distance education provide a cost-effective solution to expanding access and enhancing the quality of education". According to him, the guiding principles for this exploration should be:

- Education and the act of learning is a profoundly social act, and
- Technology is not a panacea for the challenges that confront education and training on our continent.

He advocated a critical approach: "We must guard against the uncritical introduction and adoption of distance education and the associated new technologies. Unless we do so, we are in danger of once again turning our countries and Continent into laboratories for educational experiments for external agencies, the failure of which in past decades has done untold damage to our educational systems."

Africa has been in a prolonged crisis; in the West, Africa was called a continent in chaos. Political instability, bad governance and chronic internecine conflicts had plagued many countries for several years. Poverty and malnutrition has had its toll on human life. To top it all, HIV/AIDS pandemic has been claiming the lives of many. According to the Food and Agricultural Organisation of the UN, about 265 million people in Africa are hungry and poor (living on less than 1800 calories per day).

As the democratic era began to collapse and the steep decline began somewhere in the 1970s, the developed countries began suggesting that Africa needed to behave itself and let the market forces take over with no interference from governments. The World Bank and the IMF virtually ran the economic policies of the debt-ridden continent, recommending regimens of budgetary belt-tightening known technically as structural adjustment programmes. All these had little or no effect on most countries. By the turn of the century, Africa was poorer than during the 1960s.

All these had thrown the promising educational systems in most countries totally devastated. As always, education took the bulk of budget cuts; there was no money to pay the salaries of teachers. Most of the bright teachers left their countries. School systems collapsed. Universities and higher education systems suffered the most.

The World Bank's prescription was to focus on primary education and reduce the budgets for universities and higher education.

World Bank, International organisations like the UNESCO and several rich countries stepped in with aid packages according to what they thought could help the sick Africa. During the 1980s and 1990s, distance education had made major contributions to development in most developing countries. Distance education methods and practices were not new to Africa. Several countries received support from aid agencies. UNESCO supported major teacher education initiatives, While World Bank sponsored several country-specific initiatives in distance education besides what came to be known as The African Virtual University (AVU). There were, in addition, a large number of bilateral aid programmes sponsored by several governments.

Despite substantial inflow of aid, the situation on the ground did not show any signs of improvement. The outcomes of the many initiatives in education did not add up. The African Virtual University was a costly experiment in sophisticated technology sponsored by the World Bank in 1997. The aim of the project was to deliver programmes of professional education developed by American universities to African students using satellite communication technology. Predictably, there were no takers for this expensive educational innovation. Several years later, the AVU project was handed over to the Africans in 2000. Located in Kenya, the AVU has in 10 years trained about 30.000 African students at the degree and diploma levels.

This is not the place to go into a detailed critique of African economic development. Yet, it helps to understand the African mindset and the scepticism about distance education and technology intervention. And that explains the frustration of African leadership with educational innovations proposed by the developed west, and the misgivings expressed by the South African Education Minister, quoted at the beginning of this section.

1.3.3 Does Africa Need Distance Education?

The question of relevance of distance education to Africa still remains. Whatever the misgivings, distance education has proved its utility and effectiveness for developing countries in Asia, Latin America as well as the countries in the Caribbean and Pacific regions.

Addressing the same conference at Cape Town, Sir John Daniel, then Additional Director General of UNESCO made a powerful plea for distance education and its relevance for Africa.

- All the names, ranging from virtual learning and multimedia education to flexible learning, refer only to the single reality of distance education that enables providers reach out to more people, at more places and at more times.
- Africa needs massive expansion of opportunities for learning by widening access to quality education at affordable cost;
- Distance education, in fact, is the outcome of the deconstruction of the education process into its component parts, namely, design, planning,
- implementation and evaluation and undertaken by specialists in each component through division of labour, instead of being carried out by a single teacher.

- Distance education encourages independent study, supported where necessary with interactive media. If a right balance between the two can be established, it can achieve economies of scale in providing quality education and cost-effectiveness. Interaction with part-time tutors can reduce tuition costs; the marginal cost in using interactive media like computer-assisted learning does not add to the cost with the increase in the number of learners.

How are all these relevant to Africa, one might ask. The answer, according to Sir John Daniel, is:

- Institutions like the UNISA, now made up of Technikon SA, Vista University and the old UNISA itself, has over 200,000 students on its rolls pursuing distance education programmes, the majority of all African students in higher education are also distance learners. University of Zimbabwe and the newly revived Nigerian Open University promise sufficiently large enrolments. The very low age participation ratio in higher education in Africa suggests major gaps in the higher education provision. If good quality education is provided at affordable cost, distance education provision can sustain itself.
- With the declining costs of independent learning media (computers), the cost of distribution of knowledge is dropping. The availability of course material free of cost on the Web sites (open source materials) of several well known institutions can help virtual universities like AVU and COL's VUSSC provide quality education at reasonable cost.
- One of the gravest problems that Africa faces is the acute shortage of teachers. Most African governments are left with no choice but to augment their teacher training systems by using distance education methods.
- The digital divide is no excuse for not making any effort at technology applications. Use of computers for teaching and learning is pretty rare almost any where in the world. Africa has enough time to catch up and it need not and should not give up.

The demographic changes in Africa have been quite unlike in much of the rest of the world. Due to a combination of circumstances, environmental changes, poverty, HIV/AIDs, and political and civic strife, have left Africa with a population half of which is less than 20 years of age; and the growth of population continues to rise at an alarming rate. The result is that governments are unable to build school systems fast enough to absorb the increasing numbers of primary, secondary and college level students. These young people are eager to find educational opportunities that will better equip them to compete in the increasingly globalised world, a need that can effectively be addressed by distance education systems (Zane L Berge in TJODE, April 2007).

Berge goes on to argue that the high level of inter-institutional cooperation that is necessary for the success of distance education in SSA demands common national strategies for institutions organising DE programmes and the governments and institutions that help shape them. Radio, communication, postal services, telecommunication and schools should all get orchestrated in a fluid system. As DE programmes become further dependent on ICT, both bandwidth and connectivity shift from

a question of business to a question of politics. When governments get involved, can politics be left out? Whatever be the politics of distance education, its relevance and inevitability in the African context is beyond dispute.

Check Your Progress 2

Notes: a) Space is given below for your answer.

b) Check your answer with the one given at the end of this unit.

Is distance education relevant to Africa? Give four reasons to justify its relevance. (Answer in about 100 words.)

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1.4 ELEMENTS OF GOOD PRACTICE

Good practices are commonly accepted practices within the higher education community that enhance institutional quality. It is a positive action that must be successful, innovative, have a possible multiplying effect or transference to other institutions, and be sustainable.

1.4.1 Three Pillars of Distance Education

In broad terms, good practice in distance education in Africa rests on the three pillars of distance education - course design and development, learner support and administration. Policy makers can support distance education by creating an environment that encourages integration of these three pillars at institutional level within a comprehensive national distance education policy framework. In South Africa, for example, a Distance Education Quality Standards Framework has been in place since 1996. This framework sets out a list of criteria that a distance education institution must adhere to in its programme development and delivery. Yet, there have been instances of breaches of these practices by institutions. For instance, studies have found that too few teachers have been coordinating too many courses, the systems for appointment of, and payment to, part-time teachers had no adequate administrative support, programmes were developed with no clear idea about possible beneficiaries, there was mismatch between their levels, duration and the National Qualification Framework requirements for employment, the contents were incoherent and the learning packages were disorganised, there were delays in distribution of materials, and inadequacies in monitoring (Glennie & Welch).

Good administrative practice requires that a number of interrelated systems operate efficiently in support of teaching and learning. These include systems for marketing and recruitment, student registration, examination, administration, student records, financial administration, the management of dispersed tuition and mentoring, the management and administration of staff including decentralised and part-time staff,

the production and distribution of courseware, and the management of the underlying ICTs necessary for both administration and teaching. In order to ensure the sustainability of a distance education enterprise, these and other systems have to be carefully designed and maintained: every step in each process needs to be carefully thought through and organised. Elements of industrial practice with its division of labour need to be introduced into distance education management. Although this is not often initially acceptable to those used to traditional contact institutions, it is a prerequisite for student satisfaction and success.

Course design and development lies at the heart of the educational process. Good practice requires a high level of expertise in curriculum development, course design, courseware design and development, and assessment of learning. In order to achieve self-sufficiency these activities need to be integrated with the professional development of teaching staff.

Learner support is essential to the success of distance education programmes, whether they are formal degree offerings or community development projects with very specific objectives. Examples of learner support practices range from online chat groups and telephone support to tutorial sessions in learning centres and informal workgroups in the community or workplace. One of the most significant elements of good distance education practice that differentiates it from traditional correspondence courses is the personal contact and learning achieved through learner support. A further dimension of learner support includes access to knowledge through well functioning libraries, and the whole range of ICTs.

While these three elements are crucial from the organizational point of view, it is equally important that systems should be in place to continuously study and analyze the experiences gained, the innovations introduced and the impact that the current practices have made on the overall performance of the system. Systematic research and documentation are thus critical to the growth of distance education systems. There are several organizations in Africa that are engaged in such research. Notable among them is the South African Institute for Distance Education (SAIDE) that was established in 1992 to promote open learning principles and the quality of the distance education provision through systematic research and investigations.

1.4.2 Sustaining Distance Education Systems

The long-term sustainability of distance education enterprises can only be assured if these systems and processes are continuously evaluated and improved upon within an institutional ethos of accountability and good governance.

Having said this, it would be worthwhile to look at some of the successful distance education programmes and the practices they follow:

- The best DE programmes are those that partner with universities outside Africa, especially those in the United States, Europe and Asia that have set up campuses in Africa. This allows sharing of resources and offering high quality courses to students. For instance, students at AVU in Kenya take online classes at MIT; the FORST programme in Benin permits students to take classes at McGill University in Canada; and the RESAFAD programme in Djibouti connects teachers for training at French Universities (Darkwa, 2000);

- The most successful programmes also take advantage of the resources offered by international donor and development community, including the World Bank and UNESCO. They also partner with several agencies and Associations in Africa that support distance education programmes;
- Successful programmes primarily depend on print media supplemented with communication by radio, text and email. They do not rely heavily on e-learning systems. They do nevertheless try to induct as much of modern ICTs as they can by building digital libraries in partnership with those who run such libraries, and establishing networks of tutor-led learning centres or cybercafés. These learning centres provide access to learning materials and listening/viewing facilities as well as opportunities for interaction with tutors and peer groups; and
- In short, good practices for success in distance education are cooperation and collaboration with partner institutions, sharing resources, ensuring adequate financial support and creating and maintaining satisfactory learner support systems to sustain learner interest.

1.4.3 Technology vs Tradition

Africa now offers two fine examples of running good distance education programmes; one using traditional methods and the other using modern technologies. UNISA, using traditional methods of printed texts, correspondence and minimal contact lessons has now an enrolment of over 200,000 students, and continues to grow. The African Virtual University, after it became a really African managed enterprise has grown substantially serving all of Africa with a high level of integration of ICTs in its distance education delivery. Since 2000, it has trained 30,000 students at the degree and diploma levels. Its programmes are still not easily affordable, but it has obviously come to stay. As Berge puts it, the difference between AVU and UNISA is that while AVU uses technology to teach technology, UNISA uses traditional methods to teach traditional subjects, in addition to some IT and engineering.

Check Your Progress 3

Notes: a) Space is given below for your answer.

b) Check your answer with the one given at the end of this unit.

What are the three major elements that constitute good practices in an effective distance education system? Explain each one of them in about 15-20 words.

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1.5 THE ROLE OF TECHNOLOGIES

The South African Education Minister's remarks quoted above, concerning the social dimensions of learning and the idea that ICT is not a panacea for the challenges to distance education in Africa, provide a backdrop when considering technology applications for education delivery in Africa. It has to be admitted that application of sophisticated information and communication technologies are probably a necessary step to improve education, but it is certainly not a sufficient step.

1.5.1 Early Uses of Technologies in Africa

Africa has a long history of using communication technologies for education and development. According to a world Bank Working Paper (2002), these technologies are increasingly being used to widen access, improve the effectiveness of teaching and extend the outreach of programmes at different levels of education in sub-Saharan Africa. The Paper mentions several instances of Interactive Radio Instruction (IRI), Educational Television and use of computers at the level of primary education, and extensive use of these and other forms of more sophisticated ICTs like video technology, satellite communication and Internet in the secondary, tertiary and teacher education programmes in Africa. According to the World Bank, the cost of technology-based programmes is determined by the following aspects:

- The cost of the hardware represents about a quarter of the total cost;
- As distance education systems have higher fixed costs and lower variable costs, they can achieve economies of scale, if the numbers are high;
- Technologies with higher fixed costs and lower variable costs, such as radio, can be inexpensive if they serve large numbers of students and the recurrent costs are manageable; and
- Technologies with higher variable costs, such as personal computers that work in conjunction with conventional teachers may improve quality, but they may be prohibitive at the primary school level, where teacher supervision is a requirement.

A literature survey on policy and practice in open and distance learning commissioned by the ADEA Working Group on Distance Education and Open Learning in 2002, found that;

- Among the Anglophone countries, 96% of the institutions used print medium, about 15% used audio/video cassettes and about 5% used higher technologies like audio conferencing, satellite communication, Internet, etc.;
- Among the Francophone countries, print medium was used by 88%, audio/video cassettes by 15-30%, and satellite and Internet based communication by 18-34%;
- Among the Lusophone countries, 90% used print, 70% used radio, and 40% used audio conferencing and 20% audio cassettes.

The survey covered over 140 institutions and the finding clearly establishes the wide use of available technologies in the delivery of distance education programmes.

1.5.2 Closing the Digital Divide

We have noted elsewhere that African countries have been lagging far behind other countries in terms of access to, and use of, modern ICTs. In the 1990s, for instance, not more than a dozen countries in Africa had access to Internet. The use of personal computers was very low. Even where Internet was available, connectivity was a major problem. This divide between Africa and the rest of the developed world was described as the digital divide. For most African countries, closing this gap is an urgent issue.

At the initiative of the Organisation of African Unity (OAU), the Heads of African governments decided to launch a united effort for Africa's development at the turn of the current century. The new initiative called New Partnership for African Development (NEPAD) was launched in 2001. NEPAD is a vision and a strategy; among its major goals is the closing of the digital divide. NEPAD proposes the development of continent wide infrastructure for IT and the training of a critical mass of personnel trained in IT skills through its e-school programme. An e-Commission established by NEPAD has plans to use the African Virtual University in establishing technology-enhanced learning centres in all African state capitals, to begin with. Peter Kinyanjui, Programme Commissioner of the e-Commission told AMCOOLDE in February, 2004 that "NEPAD recognizes the significant development role and crosscutting impact that Information and Communication Technologies (ICTs) can have on all aspects of human life. The development of the ICT sector is therefore identified as one of the priority focus areas of NEPAD aimed at defining the continent's new and aggressive effort to accelerate Africa's economic development and growth. NEPAD has established Special Task Teams for the Priority Programmes. In the ICT sector the NEPAD Task Team is known as the e-Africa Commission. The e-Africa Commission is responsible for developing policies and strategies and projects at the continental level as well as managing the structured development of the ICT sector in the context of NEPAD. The NEPAD ICT programme is intended to accelerate the development of ICT infrastructure and its use for a wide range of applications and services. Its ultimate purpose is to create an Information Society and knowledge-based economy in Africa. It is in the information and knowledge industry that jobs are created fastest".

The key priorities, according to Kinyanjui are:

- 1) To develop an ICT infrastructure across the African continent; and
- 2) To develop ICT skills in a critical mass of the African population."

1.5.3 New Technologies in Use

At this point, it would be useful to take a look at the ICTs currently in use for educational delivery in Africa. These are:

- Television and radio broadcasts, using satellite and conventional transmissions systems.
- Computer-based online: interactive courseware; access to knowledge using the Internet and e-libraries.
- Computer-based stand-alone CD-ROM material from simulations and interactive courseware to library books; writing of assignments.
- Telephone and fax using landlines and wireless technology.

As we have noted a little while ago, these are early days still, and the technology component in the delivery of the largest distance education provider in Africa (UNISA) is only nominal. It would be worthwhile to remind ourselves that it took the UKOU all of four decades to move away from broadcast delivery of its courses through BBC and focus more on DVDs and Internet and Web-based delivery systems. In Africa, a beginning has been made, and the question is, can Africa sustain it? The situation pretty much looks promising even as we need to reassure ourselves that the availability of a particular technology is not the sole determinant of a successful distance education programme.

1.5.4 Technology Integration in Distance Education

We just mentioned that no technology, by itself, can sustain or assure the success of distance education. Nor do we use technology for its own sake. If we are serious about technology-enhanced learning, we need to integrate the tools provided by technology into the teaching and learning processes. It is useful to note that:

- ICTs are seldom used without some form of printed material;
- The design decisions concerning an appropriate mix of technologies, including print, are critical for the success of any programme;
- The design and technology mix used must take the situation of the target group into account;
- The potential of a specific technology must not be judged in terms of its capability alone, but in the context of the human, economic and physical environment it serves;
- Great benefits can be realised with relatively unsophisticated technology;
- The cost, both to the learner and the institution, of using a particular technology is a major factor in its viability and sustainability;
- Partnerships with international development agencies and the private sector can help meet infrastructure and programme costs;
- Decentralised learning centres equipped with adequate ICT facilities are necessary for learner access;
- Computers sometimes create bigger problems than they solve: both staff and students have to learn to use technology and learners have to take charge of their own learning;
- Satellite technology, as an alternative to landlines and conventional broadcasting, offers viable means of reaching African learners; and
- Specific attention must be given to the quality assurance of ICT-based learning.

There are no easy answers to the complex issue of determining the suitability of any particular kind of ICTs for education delivery in Africa. Prof. Kinyanjui believes that research in Africa and elsewhere has shown that there are some technology applications that can be implemented in African countries on an affordable and sustainable scale. In support of this view, he mentions the successful projects in teacher development, Maths, Science and Technology teaching in secondary schools, quality improvement projects in primary schools through SchoolNet project,

and expansion of access to tertiary education. In his opinion, these applications offer the least risk for decision-makers and warrant further investigation into their appropriateness in specific situations.

Check Your Progress 4

Notes: a) Space is given below for your answer.

b) Check your answer with the one given at the end of this unit.

What is the digital divide? How can countries in Africa overcome the problems faced by technology deficit and transform their education systems to meet the challenges of human capital development? (Answer in about 100 words.)

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1.6 LET US SUM UP

In this Unit, we have made an attempt to provide you with a synoptic view of what distance education provision means to African countries generally. Africa was one of the first countries that had set up a distance education university, the University of South Africa (UNISA). Though UNISA continues to be a major distance education provider in the world, most countries in the continent are languishing for want of adequate educational opportunities for their people. The human development record of most countries is poor; nearly all of them require massive expansion of their education systems at all levels. Conventional means of building schools and colleges, recruiting and training teachers and enrolling students are no longer an option for most countries; they have to go for innovative methods like distance education and open learning systems to catch up with the rest of the world. We have focused our attention in this Unit on providing you with an understanding of the concepts and practices followed by open learning and distance education systems across the world and the policies and practices that Africa must promote to make these innovative systems integral to their educational provision. We have also briefly touched upon the role that modern technologies can play in making that possible.

1.7 CHECK YOUR PROGRESS: POSSIBLE ANSWERS

Check Your Progress 1

- i) One of the core issues concerning the changing nature of distance education has to do with the increasing emphasis being given to face-to-face tuition and mentoring in the design of distance education programmes. This is an essential characteristic of distance education techniques as applied to technical and vocational education and training, and to adult education in a community context. At the same

time, contact students are making more extensive use of ICTs to access information without a teacher having to be physically present. Different views on this apparent convergence of distance and face-to-face (contact) education are reflected in the recent distance education discourse. The model emerging out of this effort can be broadly classified as convergence flexible learning models otherwise called towards blended learning approaches.

- ii) Open learning is an approach or philosophy that combines the principles of removal of barriers to access learning, recognition of prior learning experience, flexible learning provision, lifelong learning and the design of learning programmes with the learner at the centre. Distance education describes the methods of delivery of education in which there is a separation of learner and teacher, and learning usually involves the use of multiple media and different modes of learner support. While nearly all open learning provisions use distance education methods for delivery, all distance education programmes need not be open learning programmes.

Check Your Progress 2

African countries have to make extensive provision for distance education to ensure that their nationals have reasonable access to good educational provision at all levels. The matter assumes importance because:

- Most countries have still a long way to go to fulfil the goals of Education for All and the Millennium Development Goals. Most of them suffer from critical shortages in the supply of trained teachers. Augmenting teacher supply using distance education is vital.
- A large number of African countries are at the bottom of the global Human Development Index. Improved access to good quality education at all levels is important in improving the quality of their human capital;
- Provision of good quality education, especially at the secondary and tertiary levels, using conventional methods, is cost-intensive. Distance education methods, if carefully employed, can reduce the costs and ensure the quality of the education provision.
- The enrolment ratios at all levels are very low, reflecting the huge gaps in education provision. African countries need to fill these gaps. Expansion of tertiary education, especially technical and vocational education, delivered through distance mode, using modern technologies, might be the answer.

Check Your Progress 3

The three broad elements that constitute good practices in distance education are:

- **Course design and Development:** there should be well defined criteria that a distance education institution should adhere to in its programme development. These would include development of programmes with a clear idea about the possible beneficiaries and their needs, the mix of content that would meet the needs of the employment market, currency and coherence of content, the media mix, etc.

- Learner support: organisation of the learning packages and their timely distribution, provision for interaction with tutors and fellow students at remote locations, provision for constant monitoring of student performance and feedback, ensuring easy access to the media used in the delivery of programmes, etc.
- Management and administration: Good management practices require that all interrelated systems operate efficiently to support teaching and learning. These include systems for marketing, student registration, production and distribution of materials, recruitment of tutors and their training, conduct of examinations and maintenance of student records, management of the technology systems used for teaching-learning support as well as management of the institution including staff records and financial administration.

Check Your Progress 4

Digital divide is a term that gained currency towards the close of the 20th century. It refers to the gap between people who have access to, and use, modern information and communication technologies like computers, internet, broadband, and so on. These gaps exist among people within countries, among countries and also among regions. In terms of penetration of personal computers and internet access, Africa is way behind most countries in other continents, though thanks to the efforts of the African Union and initiatives like NEPAD, the gaps are being closed rapidly. Yet, since these technologies are highly costly, and are unaffordable for large numbers of people, their use remains confined to small pockets within countries and communities. Extensive applications of ICTs in education need huge investments. Africa is trying to mobilise the resources through international cooperation that involves international agencies like the World Bank, UNESCO and other multilateral aid agencies as well as bilateral arrangements with countries like the UK, Japan, India and others.