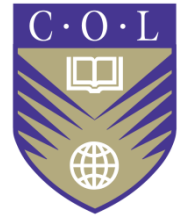


Distance Education and Open Learning in Africa: What Works or Does Not Work



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Introduction

This brief paper attempts to summarise the main lessons learnt in the process of establishing open learning and distance education systems in Africa. It focuses on what has or has not worked well, and proposes some measures that governments, institutions, organisations and individuals should take if Africa is to keep pace with the rest of the world in applying new and enhanced strategies for human resource development.

The paper is aimed at stimulating group discussion and action on what remains to be done. In particular, the roles of governments and professional associations are emphasised. It is expected that the members of the groups will, individually and collectively, identify the common issues and challenges facing education practitioners in Africa, and thus develop appropriate strategies and policies for open learning and distance education at the national, regional and international levels.

Resource mobilisation

The various resources required for a distance education project can be divided into four categories: human, physical, financial and technological.

Human resources

Distance education requires teams of people performing different tasks and working at different levels to accomplish a common goal set by the project. Some of the staff might operate at the national level while

others will be working at the local and institutional levels. The processes of recruitment, training and retention of staff should be well articulated and coordinated to ensure maximum efficiency and effectiveness. Some elements of staff development should include training for succession, sustainability and renewal mechanisms. Many of the distance education projects in Africa have inadvertently missed some of these elements and, as a result, have experienced stunted growth.

Physical resources

Distance education systems demand substantial capital investment at the initial stages in order to establish specialist facilities for the design, production and delivery of programmes. An efficient infrastructure is required within the main powerhouse from which all the major administrative and academic activities are coordinated. As far as possible, a distance education institution should make maximum use of existing resources and facilities wherever they are to be found in the country and should, therefore, strive to work closely with other institutions and agencies within government and outside. A part of the initial planning, for example, may include a review of the communications infrastructure in the country and of the arrangements that can be made for library facilities and other learner support services. By the same token, distance education institutions should be prepared to share their facilities and services with other educational institutions and organisations. There might be need to augment and strengthen the facilities at these institutions to enable them to cope with increased demands.

It is essential to emphasise the paramount importance of developing effective, responsive and flexible learner support systems in distance education. These should constitute an integral and vital part of the programme, without which it will not be effective. The delivery of the programmes will rely on the efficiency of the local learning centres and resources and on the coordination of the various support services required by the learners at convenient locations throughout the country. The project should therefore endeavour to establish and sustain effective support services that may include the following:

- a. organised study groups that meet regularly
- b. timely and constructive feedback on assignments
- c. access to sufficient learning materials, including audio and video cassettes
- d. photocopying facilities and laboratories for experiments
- e. guidance and counselling
- f. problem solving on administrative and practical work arrangements
- g. facilities for the production of science experiment kits
- h. record keeping and management systems
- i. assessment, evaluation and accreditation systems

Financial resources

Starting a new distance education institution from scratch is a heavy and expensive undertaking that requires considerable investment up front. The output of that investment and its economic efficiency can only be realised over several years with the growth of enrolments against fixed costs. Many distance education institutions in Africa have been started without adequate funding and their rapid growth and expansion outstrip the available resources, and as a result they have been unable to maintain both the quantity and quality of their services as well as the efficiency of their operations. Many of the distance education institutions that have been in existence for over ten years are in need of careful strategic planning and restructuring in order to prepare them for the educational challenges ahead.

Technology resources

Although print remains as the principal medium of delivery of distance education programmes in Africa, there are attempts to apply various technologies to support these programmes in those countries, which have the required resources and infrastructures. Modern advances in telecommunications and information technologies are offering exciting new opportunities for developing and delivering distance education programmes in selected countries including South Africa.

Audio, video and computer technologies are currently being used to support correspondence teaching and face-to-face instruction in a number of countries, with varying degrees of success. It seems, from a closer examination of the success stories, that these modern technologies will stand a better chance of success where they provide greater interaction and feedback between the learners and the teachers and among learners and teachers themselves, or additional sources of information and knowledge. There are, nevertheless, wide gaps where these modern technologies have hardly made any impact in Africa such as course planning and design, learner assessment and record systems, administrative and financial management of the distance education systems.

If new technologies are to be successfully used in distance education and open learning, they need to be affordable, accessible and conveniently located for learners. In developing countries, community-based resource centres containing classrooms, conference rooms, laboratories and libraries, as well as media and technologies for distance education, are needed in an increasing number of countries. There are several ways to build and equip such centres which would provide multi-purpose learning resources for the communities as has been demonstrated by the network of the Open University of Tanzania.

Issues of costs of distance education systems are difficult to resolve partly because of the poor quality of data that is available and partly because of the differences between the economic structures of distance education and those of conventional education. The choice of teaching media in distance education, for instance, will have a direct influence on the total cost of setting up the system (with most costs having to be met up-front), and therefore on the cost per student. The data collected in the study is grossly inadequate for any conclusive comparisons or generalisations to be made. A great deal more work is required.

There is a whole new series of technological developments that will have the most profound effect on education and training, certainly by the 1990s and beyond. The microcomputer is already well established

and is spreading to households in a number of countries. Developments like cable television and Internet may become extremely influential in education.

One feature of some new technology is that it offers an interactive capacity on a scale not previously available. Further, the teacher's authority and control over knowledge will be somewhat diluted and in the new millennium students will have access both in schools and homes to the largest multi-media libraries in the world. Knowledge will be available to all who will have access to these technologies.

However, it is reasonable to predict that, as we move towards the twenty-first century, there will be many alternatives to school and campus-based education and greater prospects of the workplace, the home and the community centre becoming more significant sites for learning. Computing, broadcasting, film, publishing, music, theatre, museum and telecommunications industries have now emerged organisationally and technologically as powerful agencies for education and training. The age of "knowledge industry" is already here, and it is a global industry that regards education and training as its most important market.

It is also reasonable to predict that printed sources will remain central in distance learning because of their flexibility, user friendliness and cost advantages. The development of digital technologies, on the other hand, will enhance the design, distribution and delivery of courses, while computers will assist in individualised instruction, records keeping, management and networking of distance education systems. The traditional library will be transformed into a comprehensive information and learning resource centre.

Resources and their management

By its nature, distance education is not cheap. Good distance education is expensive. It requires considerable investment in terms of human, physical, financial and technological resources well in advance of the enrolment of students on the courses. It also requires sufficient lead-time to allow for proper planning, preparation and distribution of learning materials, and establishment of learner support services. The product of that investment and its economic efficiency can only be measured over several years when the programmes will be reaching substantial numbers of students in several intakes. Further economies of scale will be realised when learning materials become more widely available to larger audiences than those formally enrolled.

It is also possible for a particular project to demonstrate its cost-effectiveness through its adoption or adaptation by the various national governments and local institutions and agencies. The examples here would include the use of learning materials for both in-service and pre-service teacher education programmes, or the sharing of standard materials by three or four countries within a sub-region. The project supported by COL for the training of science, mathematics and technology teachers in Africa (STAMP 2000+) has established six guiding principles in the mobilisation of resources:

- a. the project will attempt to make maximum use of existing resources, personnel and facilities wherever they are to be found.
- b. it is expected that the production, delivery and assessment of the programmes will be anchored at designated local institutions with adequate infrastructures for offices, classrooms, laboratories,

libraries, printing and reprographic facilities, communication and computer hardware and software.

- c. the host government should be prepared to provide an adequate subsidy to the project in terms of communication and computing equipment, local delivery costs, and other items such as paper, transport and salaries.
- d. the project should attempt to maximise its cost-recovery potential by charging realistic and affordable fees to its students or/and by seeking sponsorship for students by employers, local authorities and the private sector. It should also be noted that teachers have to bear a number of "hidden costs" associated with their training such as travel, books and other learning materials as well as the "opportunity cost" of their training.
- e. the host government should seek outside donor assistance to supplement its own input into the initial capital and institutional capacity to support the project. This assistance could be in cash or in kind and targeted to specific major items of expenditure.
- f. the host government and designated local institutions should strive to establish and maintain both the quantity and quality of the services as well as the efficiency of the operations related to the programme.

Why operational effectiveness of distance education has been below expectation

1. At the policy level where the introduction of distance education strategies has not been properly coordinated with other efforts such as the provision of adequate resources, the development of adequate supporting infrastructures, education and training of users of distance education.
2. At the organisational level where distance education and associated technologies have been introduced without adequate understanding of the organisational culture and context, including political, physical, economic, social, technological and trade environment (PPESTT).
3. Interaction between the two levels is equally important in order to understand policy formulation and the effectiveness of the processes involved in a well-functioning distance education system. Policy needs to show greater sensitivity to the contextual issues at the organisational level.

Too often, distance education has been introduced rather hastily or arbitrarily in a top-down manner. Policy makers tend to assume that the mere introduction of distance education will bring about the desired changes in organisational work ethics, environment and productivity. We should perceive distance education and associated technologies as a set of useful tools for solving specific problems, and NOT a universal remedy for all the educational ills that plague the developing world.

Distance education demands careful planning and coordination, even prior to its implementation and use. It requires careful design and development, a reliable information and communications infrastructures, human resource development, including orientation, induction and training, and the relevant

organisational mechanisms to coordinate the various elements. Supporting legislation may be required to facilitate meaningful coordination of efforts by all players and stakeholders.

Establishing a general framework for a national policy on distance education

Okou-Uma (1991) has identified a three-tier pattern in relation to information and technology (IT) policies and which could be applied equally to distance education policies, thus:

1. Strategic Planning, including goal setting and policy formulation

1.1 A proactive intervention - where a government has an explicit distance education policy and has set up an inter-governmental committee on distance education, or its equivalence.

1.2 A reactive intervention - where a government has an implicit distance education policy and opts to be responsive, in the informal sense, to the recommendations of an ad hoc committee or professional body. This situation is prevalent in many Commonwealth developing countries.

1.3 A passive intervention - where a government has no distance education policy, implicit or otherwise, but opts to let distance education utilisation follow market forces of supply and demand.

2. Coordination, Promotion and Control, including resource allocation, control and monitoring.

3. Operational/Implementation Level, including execution of specific tasks and activities, as well as interventions by distance education institutions, professional associations, regional and international organisations with special interest in distance education, user ministries and departments.

Ideally, the development and implementation of distance education policy should be postulated to comprise all the three successive phases outlined above. The purpose of having an appropriate national distance education policy is to create an enabling environment in which:

- economic and social benefits may be achieved
- utilisation of resources may be optimised
- domestic technological capabilities may be encouraged
- procurement decisions can be taken rationally.

The distance education policy itself should aim to:

- promote, encourage and support the orderly development of distance education and associated technologies in the country
- enhance the effectiveness of distance education at minimal economic and social costs

- outline means of improving education and training facilities to overcome the scarcity of skilled personnel
- outline the application priorities in consonance with national development plans
- ensure the development of an infrastructure for efficient communication, the establishment of mechanisms for the coordination and effective management of information and communications technologies in the country.

In summary, the typical components of a sound national policy on open learning and distance education should include the following:

1. ***At the government level**, explicit recognition of distance learning as a viable education approach; and granting of equivalency to degrees, diplomas and certificates obtained through distance learning; funding policies for distance education institutions, the establishment of special funding mechanisms for launching or upgrading distance learning systems as appropriate, expanded capital and operating budgets for appropriate learning technologies, and so on.*
2. ***At the institutional level**, recognition of excellence in the design, development and delivery of distance education courses, systematic and aggressive staff training and reward systems, development of appropriate learner support systems including study skills development and acquisition of appropriate learning technologies.*

It is important to ensure that the national policy on distance education is integrated within the general educational policy framework for the country. The critical issue here is **NOT** to marginalise distance education and open learning.

Research and evaluation in distance education

Research and evaluation in distance education should constitute an important activity in all tertiary distance education institutions in Africa while, at the same time, keeping in close touch with research activities elsewhere in the world. Although research has been among COL's responsibilities from its original Memorandum of Understanding, the operational needs have limited both its staff time and other resources available to support research. One of the ways in which COL can fulfil its mandate, however, is through collaborative work on research with other agencies. The recent establishment of a dedicated research institution in distance education, with an international focus, provides an opportunity for COL to support research that will benefit its clientele.

The International Research Foundation for Open Learning (IRFOL) has been set-up as a specialist research agency, with a charitable status, and is based in East Anglia Regional Centre of the UK Open University. It has already worked with COL in, for example, providing one of the background papers for the Asian Development Bank seminar on distance education for teacher training in 1996. It is hoped that African tertiary institutions will be involved more actively as practitioners and partners in research as well as consumers of research findings.

The role of professional associations in distance education

Another development, which has greatly benefited distance education systems, has been the establishment of professional associations in the field. A number of regional and national associations in distance education have been created within Africa over the past ten years or so and have been instrumental in bringing together distance education learners and practitioners for a common purpose. The two major regional associations are:

DEASA - with a total membership of 21 institutions drawn from 6 countries in the Southern African region. Through COL support, DEASA has emerged as a major professional association promoting human resource development in the region. Its main activities have focused on the training of staff in the various aspects of distance education including course writing, editing and the application of media technologies, the production and distribution of handbooks developed at the training workshops and the production of a regular newsletter to facilitate information sharing among the members. Over 200 people participated in the DEASA training workshops, and over half of them are women.

WADEA - established in 1992, the membership includes distance education institutions drawn from Nigeria, Ghana, Sierra Leone and The Gambia.

In addition, there are several national associations that are currently active in Zambia (**ZADE**), Zimbabwe (**ZINADOL**), South Africa (**NADEOSA**), Tanzania (**DEATA**) and Ghana (**GHADEA**). They have all received advice as well as financial and professional support from COL on a continuing basis. Further, all these professional associations submit reports of their activities to the Programme Advisory Committee (PAC) for Southern Africa, which was established through COL and chaired by the Minister of Education of Botswana.

The role of governments

Governments in Africa will continue to play a major role in the planning and development of education in their countries. Education is far too important to be left in the hands of the private sector and market forces. What we are likely to see over the next decade or so are closer partnerships between public and private initiatives, central and local government authorities, social and economic regional blocs such as SADC and ECOWAS, and development of inter-regional institutions to provide education and training on demand and reaching out to where the learners are. Open learning and distance education strategies will increasingly be applied to provide more opportunities for education and training at the tertiary level for the unreached and underserved populations. In this regard, Africa cannot afford to lag behind the developments taking place elsewhere in the world.

In particular, the African tertiary institutions should be at the forefront of educational and technological developments. They should be well-positioned to operate efficiently and effectively in creating and sustaining the appropriate learning environment for all groups of learners. They should start restructuring and retooling themselves for the educational challenges of the next decades in, for instance, preparing and retraining their teachers, tutors, mentors and the technical support staff for their new and expanded roles.

They should re-examine how best to utilise the present facilities and resources, including the classrooms, laboratories, workshops, dormitories and physical plants. They should also determine the appropriate proportions of full-time, part-time and piece-work staff that would be required to conduct the programmes, including the opportunities for outsourcing certain services from outside the institutions.

The issues of quality, quality assurance and enhancement systems, assessment, accreditation and credit transfer are of great concern to many governments and will need to be addressed through the appropriate mechanisms such as the national commissions (or councils) on higher education that have already been established in several countries.

African tertiary institutions must also keep up with the vast amount of knowledge and information on new technological initiatives and ensure that their staff is equipped with the necessary skills and attitudes to operate effectively in the changing learning environment.

References

- Daniel, J. (1996). *Mega-universities and Knowledge Media: Technology Strategies for Higher Education*. London, UK: Kogan Page.
- Garratt, Bob (ed.) (1995). *Developing Strategic Thought: Rediscovering the Art of Direction-Giving*. London, UK. McGraw Hill
- Gates, B., Mhyrvold, N. and Rinearson, P. (1995). *The Road Ahead*. New York, NY: Penguin.
- Harber C, Meighna, R. and Roberts, B. (eds) (1984). *Alternative Educational Futures*. London, UK: Holt, Rinehart and Winston.
- Hones, B. (1995). *Sleepers Wake! Technology and the Future of Work* (rev. ed.). Melbourne, Australia: Oxford University Press.
- Kinyanjui, Peter (1997). *Establishment of National Policies on Distance Education for Developing Countries*. Vancouver, Canada.
- Kinyanjui, Peter (1997). *Trends in Open Learning and Distance Education*. Vancouver, Canada.
- Odedra, M. and Madon, S. (1993). *Information Technology Policies and Applications in the Commonwealth Developing Countries*. Commonwealth Secretariat, London, UK.
- Okot-Uma, R.W.O (1991). *Information technology policy initiatives revisited: A Commonwealth case study analysis*, Informational Technology Policies, proceedings of the workshop held at the Beaumont College, UK.
- SCET (1994). *All our Learning Futures: The Role of Technology in Education*. Glasgow, Scotland: Scottish Council for Educational Technology.
- The Commonwealth of Learning (1997). *Training of Upper Primary/Junior Secondary Science, Mathematics and Technology Teachers in Africa by Distance: A Project Proposal*. Vancouver, Canada.

UNESCO (1996). *The International Commission on Education for the 21st Century*