

**INTERNATIONAL RESEARCH FOUNDATION
FOR OPEN LEARNING**

*Open and distance learning for basic and
non-formal education in developing
countries*

PALITHA EDIRISINGHA

MARCH 1999

OPEN AND DISTANCE LEARNING FOR BASIC AND NON-FORMAL EDUCATION IN DEVELOPING COUNTRIES

Paper presented at the Pan-Commonwealth Forum on Open Learning *Empowerment through knowledge and technology*, Bandar Seri Begawan, Brunei Darussalam: 1-5 March, 1999

Dr Palitha Edirisingha
Research Fellow
International Research Foundation for Open Learning
Cintra House
12 Hills Road
Cambridge CB2 1PF
England

p.edirisingha@open.ac.uk

Abstract

The paper is concerned with the use of open and distance learning to provide basic and non-formal education for the millions of unreached children and adults in the developing world. Despite the failure to attain universal basic education, proclamation after proclamation, the international community has failed to give serious thoughts in this regard. This paper identifies that the lack of policy guidance, based on educational and economic data, for the decision-makers in ministries of education and funding agencies as one reason for this. A two-year research project aimed at providing such guidelines, on the use of open and distance learning for basic and non-formal education in developing countries, has been undertaken by the Cambridge-based International Research Foundation for Open Learning, with funding from Centre for British Teachers. This paper presents the rationale, the research questions, and the progress of the research.

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The paper begins by outlining the rationale and objectives of the research. It reviews the progress of the 'Education For All' proclamation of 1990 at Jomtien, and shows how this research fits within that context. Second, it demarcates the boundary of the research by presenting the definitions and research questions. Third, it provides an illustration of the cases for in-depth study. Fourth, the report describes the methodological approach and the progress. The report ends by providing some concluding remarks.

The rationale and research objectives

There have been numerous regional and global proclamations, and approaches to provide basic education for all during the latter part of the century (Colclough with Lewin, 1993). Jomtien was the latest global proclamation to provide education for all by the year 2000. However, the UNESCO's 1996 mid-decade reviews show that 'education for all' is unlikely to be a reality, not even by the foreseeable future (UNESCO, 1998a). Some of the developing country governments' reluctance to allocate adequate funds for education is partly to be blamed. The failure to analyse the limitations of conventional methods to reach the millions of children and adults in developing countries is also to be blamed. The major development banks allocate increasing amounts of funds for basic education; the World Bank's allocation for basic education will increase to about 60 percent of its education budget by the year 2000 (World Bank, 1998). While this is the case, there are only a handful of initiatives, most of them still in pilot stage, to use alternative ways to provide basic education. Dodds' (1996, p. 1) appeal, 'the urgency of the governments to seek ways to harness the powers of distance learning which are becoming internationally recognised for higher levels of education' seems to have been ignored. Therefore, it is time to examine how we can utilise distance learning, both on its own and in combination with conventional methods, to reach the so far unreached in developing countries.

One major drawback, however, is that we are short of information about the effectiveness of, and the critical conditions necessary for successful implementation of open and distance learning for basic education, owing to a number of reasons. First, the uses of open and distance learning for basic education in developing countries is an under-researched and under-reported area (Perraton, 1997). Most international attention has been focused on open universities providing higher education. Also, most attention has been given to document the experience of open and distance learning in developed countries, rather than that of developing countries. This lack of reporting may be due to the difficulty of demarcating the boundaries of the field. Many non-formal education programmes for adults, for instance, are not always named or categorised as open or distance learning programmes, although many such programmes do share characteristics of open and distance learning (Dodds, 1996). As a result, the literature on adult basic education at a distance is, "like the practice, scarce, scattered, buried and extremely diverse" (Yates, 1997). A second reason is, where there is some reporting on basic education programmes, they merely focus on the practice rather than research (Perraton, 1997). Also, where documentation and research exists, it tends to be institution-based, reflecting practice in a single country, with only rare attempts at drawing generalisable conclusions.

Despite the lack of much attention, developing nations have been using open and distance learning for larger audiences to raise the quality of basic education. Some of these programmes have a direct impact on the target population, i.e., the programmes directly cater

to the learner. The others have an indirect effect, i.e., the programmes are intended to improve the capacity of the teachers and trainers.

Direct attempts are:

- offering equivalence courses for young people and adults outside conventional school environments (e.g., open schools)
- raising the quality of instruction in schools, through the use of carefully designed instructional media (e.g., educational television and interactive radio programmes), and
- development support communication – the use of mass media for education and extension work in literacy, health, nutrition, family planning and agriculture.

Indirect attempts are:

- teacher education
- supporting school management and inspection, and
- training of adult educators and practitioners

The lack of research and documentation on the above work has resulted in a shortage of policy guidance that would help decision makers in ministries of education and funding agencies to reach conclusions, based on educational and economic data, about the comparative merits of different approaches to raising quality. Therefore, IRFOL's research project works towards the development of guides to policy for developing countries. The main outcome of this research project will have an international scope. It will produce policy guidelines on the use of open and distance learning to extend the range and raise the quality of open and distance learning in basic education. These are expected to be of value not only to those especially concerned with open and distance learning but also to ministries, funding agencies and others developing policy for basic and non-formal education.

Definitions and research questions

While the above-mentioned two approaches are important to raise the access to and the quality of basic education, this research is concerned with the first category, i.e., programmes that directly provide education opportunities for adults, adolescents and children. Within this framework, basic education, in this study, covers education at primary and secondary levels, addressing both children and adults, and includes both programmes equivalent to conventional primary and secondary education and those with an alternative curriculum in health, nutrition, family planning, literacy and agriculture (Perraton, 1996). Fig 1 shows the main research questions.

The main audience for this research is the decision-makers within the relevant ministries in developing countries and those at the international funding and implementation agencies. They are interested to know what are the merits of providing basic education at a distance (the costs, the effectiveness and the benefits), and what are the critical conditions for its successful implementation. While inquiry into these questions may provide some guidelines for implementation, it is necessary to look at how a programme relates to the context. Such information is necessary for the reader to understand under which conditions does a programme operate successfully, so that he or she can make necessary adaptations for a new context.

Audience	Research questions	Research should provide information on

Decision makers in funding agencies and relevant ministries	(1) What is the evidence of the merits of open and distance learning?	<ul style="list-style-type: none"> • Cost • Effectiveness and benefits
	(2) What are the critical conditions necessary for successful implementation?	<ul style="list-style-type: none"> • Learning material development • Learning and student support system • Logistics and regulatory system
	(3) How does the programme relate to the country's socio-political context?	<ul style="list-style-type: none"> • Institutionalisation • Longevity • Sustainability

Fig. 1: Research questions

What is the evidence of the merits of open and distance learning?

Analysis of costs: This will involve gathering information about the various costs involved in the programme since its initiation.

Analysis of effectiveness and benefits: Some effectiveness and benefit indicators are enrolment, completion rates, drop-out rates, output performance, access to disadvantaged, cost recovery, motivation of students, acceptance of the programme by the society, and social and economic benefits to the country.

What are the conditions necessary for successful implementation?

Analysing the sub-systems within the open and distance learning system might be helpful to understand the conditions necessary for successful implementation (Fig 2).

Open and distance learning system

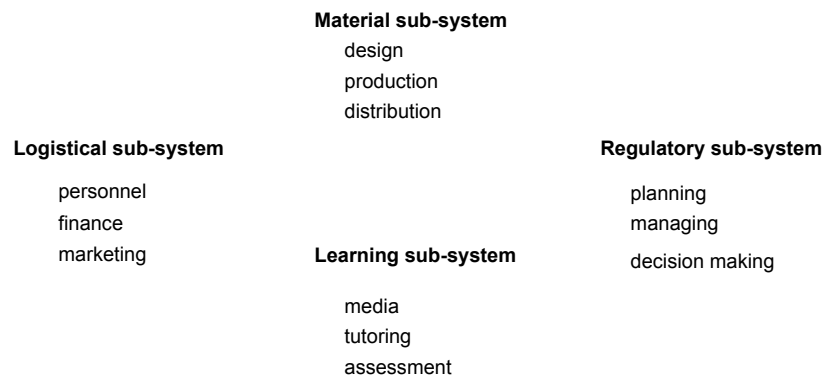


Fig. 2: A systemic view of an open and distance learning organisation (Rumble, 1997)

The material sub-system: The approach to subject-matter selection, course writing, instructional design and conducting audience research and testing course materials are some considerations.

The learning sub-system: Some aspects for investigation are: how does the learning system support the learners with limited or no literacy, numeracy and learning skills to carry out their studies at a distance, while engaged in their day-to-day work? What makes them successful learners, and what is the nature of the student support system that carries the courses into their villages effectively on a scale viable economically?

Logistical and regulatory sub-systems: The governance, administrative structure, institutional status, management structure, collaboration with other institutions both nationally and internationally, sources of funding, staff training are some issues for study.

How does the program relate to its context?

This is to investigate the political and socio-economical story behind the programme. How did the programme start, whose initiative was it, how did the programme, after the pilot phase, integrate into the main stream educational policy, or although not integrated, how does it survive are some aspects for study.

The programmes for in-depth study

A review of institutions that provide distance basic education programmes was carried out in order to select programmes for in-depth study. The characteristics of the audience, scale of operation, curriculum, media and methods, responsibility and sources of funding and the longevity of the programme were the main considerations for this review. Following are illustrations of six cases, representing Africa, Asia and Latin America.

Programmes for children

The following three programmes represent two models of open and distance learning for children. In the first one, children learn in a school-like environment. In the second and the third, they learn in regular schools, but part of their teaching is done through the radio and television respectively.

(1) Indian National Open School

The National Open School (NOS) was founded in 1989 by the Indian Central Board of Secondary Education, following a pilot open school project that initiated in 1978 (Dewal, 1995). NOS' learners include the unemployed, the employed and the marginalised such as women, scheduled castes and tribes and disabled. There are about 273,000 students enrolled with the NOS currently (NOS, 1998). The courses offered include open basic education (a foundation or a bridge course equivalent to standard 8 in conventional system), secondary certificate course (equivalent to the 10th standard), senior secondary certificate course (equivalent to 12th standard), and vocational. Plans are underway to offer elementary level courses too. Learning material include print and audio-visual programmes. Students attend personal contact programmes at study centres where tutorials and counselling are held. Assessment is based on examinations held by the ministry of education and certificates are issued once the students accumulate the necessary credits.

(2) South African Radio Learning Project

The South African Radio Learning Project was implemented by the Open Learning Systems Educational Trust (OLSET) in 1990. USAID provided the funds and LearnTech provided the technical support. The programme provides English as a second language to grade 1 and grade 2 of Black primary schools in South Africa. Plans are underway to expand the programme to grade 3. The classrooms receive daily, half-hour English language programmes either through radio broadcasting or audiocassettes. The original design was based on the early Interactive Radio Instruction model. Soon the curriculum and the instructional design changed according to the needs of democratic South Africa (Naidoo, 1998; Potter and Leigh, 1995). The programme tries to get more teacher involvement and more peer interaction among the learners (Naidoo, 1998; Leigh, 1995). By 1999, the programme expects to serve

about 1760 schools, reaching about 308,000 learners, involving about 5,800 teachers (Kenyon, 1998).

(3) Mexican Telesecundaria

Telesecundaria was launched in Mexico in 1968 in order to extend lower secondary school learning with television support to remote small communities at a cost less than that of conventional secondary classes (UNESCO, 1998b). In the early model, lessons corresponding to grades 7 to 9 were transmitted live, through open public channels to television sets placed in distant classrooms. Students listened and took notes in the presence of a teacher. The lessons were transmitted about 6 hours a day, during the school year. One hour of lessons consisted of 20 minutes of television viewing and 40 minutes of discussion. By the end of 1993, Telesecundaria was being offered in more than 9,000 schools reaching 600,000 students, about 15 per cent of the lower secondary school population. The changes undergone since its inception include, more integration between the learners, the community and teachers (UNESCO, 1998b).

Programmes for adults

(1) Sudan Open Learning Organisation

Sudan Open Learning Organisation (SOLO) was created to provide education to the increasing number of refugees from Ethiopia and other countries who arrived in Sudan (ICDL, 1998). Following an investigation into the learning needs of the refugees, SOLO was established in 1984 with the help of the Sudanese government, the UNHCR, International Extension College, and other agencies. The organisation provides educational programmes for refugees and others who are not able to receive formal schooling. Courses include literacy, numeracy, and life skill and are open to refugees, both young and adult, and to other displaced Sudanese citizens. Courses are provided through printed text, groups study, tutorial support, and study kits. During 1994-95 there were 35,000 students enrolled in non-formal courses and 25 members of staff involved in the production and delivery of courses.

(2) Thailand Department of Non-Formal Education programme

The programme is provided by the Department of Non-Formal Education within the Thailand Ministry of Education (ICDL, 1998). Courses offered include primary education, lower secondary education and upper secondary education. There are no specific entry requirements. Teaching is carried out through multiple media packages; students receive them through learning centres at provincial non-formal education centres. Teaching media include print, audio and videocassettes, and radio and television programmes. Students receive counselling and tutorial at learning centres. In 1997, there were 15,000 learners at the primary level, 150,000 at the lower secondary level and 105,000 at the tertiary level.

(3) Brazil Telecurso 2000

The programme was launched in 1994 by a consortium of state government, educational, commercial and other agencies in Brazil (Yates, 1996). The programme is led by a private agency, the Roberto Marinho Foundation (FRM), a non-profit organisation maintained by Globo TV, Brazil's largest TV network. Learners are employed youngsters and adults, who lack education. The project seeks to provide basic education, and thereby to improve their standard of living and working conditions, and consequently to improve national production. Instructional media and methods include television, print material and study groups with trained facilitators. The programme operates at primary, secondary and tertiary levels in addition to having a vocational content. There were 150,000 learners enrolled in 1996 (Yates, 1996).

The progress of the research

Currently, the fieldwork is being carried out. The first case study was the South African Radio Learning Project. Focusing on the identified research issues, cost, effectiveness and benefits; the conditions necessary for successful implementation; and the programme-context relationship, the fieldwork was carried out for three weeks. Data were gathered by consulting the financial records, journals and inventories, by carrying out extended interviews with the staff from various sections, and by visiting schools in both semi-urban and rural South Africa. The staff of OLSET kindly offered to provide additional information throughout the course of the research. The results from a separate evaluation by the University of Witswatersrand can also be used for the purpose of this research.

The political reason behind the radio learning project was to reconstruct the education of the Black children. The recent changes in South African education policies, such as introducing outcome-based education into the curriculum, have heightened the importance of the programme. There is also a move towards using English as the medium of instruction for grade 4 upwards. OLSET is redesigning their curriculum to meet these needs.

The experience gained by doing the case study in South Africa would be useful for the next case studies. The three research issues identified, the merits of open and distance learning for basic education, the critical conditions necessary for successful implementation, and the socio-political and economic story behind the programme, seem to provide useful information for this research that will help to formulate guidelines for the decision-maker. However, it might be necessary to focus more on learning support system, because the success of the programme seems to depend heavily on the learning support mechanism built into it. The effectiveness data seem to be difficult to obtain, given the limitation of time that can be spent on particular case. It is necessary to design a long-term mechanism to get such data. The use of local researchers (post-graduate and junior) to do some of the work is one approach that will be considered in the future case studies.

Concluding remarks

This paper reports the progress of a two-year research project to investigate the use of open and distance learning for basic education in developing countries. The need for this research stems from an examination of developing countries' struggle to provide basic education through conventional means alone, and the lack of guidelines, based on research, for using open and distance learning as an alternative. The research started with a mapping exercise on the international experience and a literature review, which resulted in three main research questions. The fieldwork is being carried out and the final results will be published in early 2000.

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