



# Teacher Education at a Distance: Impact on Development in the Community

*by Felicity Binns and Tony Wrightson*

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*Felicity Binns and Tony Wrightson*  
*International Extension College (IEC)*

2006

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## **Acknowledgements**

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The Department for International Development (DFID) sponsored this study, covering all the costs, including salaries, travel and subsistence. The partnering organisations were very generous in their release of key personnel as required, in hosting workshops and enabling researchers to piggyback on their field activities. Our appreciation for this cooperation goes to: the Director and Chief Executive, Dr Ahmed Modibbo Mohammed, National Teachers' Institute, Nigeria; Vice Chancellor, Prof. A.J. Lutalo-Bosa, Kyambogo University, Uganda; Director, Florine Dalgety, Guyana In-service Distance Education project, Guyana; and Principal, Savitri Balbahadour, Cyril Potter College of Education, Guyana.

We also gratefully acknowledge the assistance to the study provided by numerous unnamed field workers, teachers and teacher educators in each country.

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## Abbreviations and Acronyms

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BLSP	<i>Building Literacy with SOLO Press</i>
CC	<i>In-country Research Coordinator</i>
COL	<i>Commonwealth of Learning</i>
CPCE	<i>Cyril Potter College of Education</i>
DDE	<i>Department of Distance Education</i>
DE	<i>Distance Education</i>
DEEP	<i>Digital Education Enhanced Project</i>
DEPE	<i>Diploma in Primary Education External</i>
DFID	<i>Department for International Development</i>
EFA	<i>Education for All</i>
GBET	<i>Guyana Basic Education for Teacher Training</i>
GUIDE	<i>Guyana In-service Distance Education Unit</i>
IEC	<i>International Extension College</i>
ITEK	<i>Institute of Teacher Education Kyambogo</i>
KU	<i>Kyambogo University</i>
LR	<i>Lead Researcher</i>
MDGs	<i>Millennium Development Goals</i>
MITEP	<i>Mubende Integrated Teacher Education Project</i>
MUSTER	<i>Multi-Site Teacher Education Research Project</i>
NFE	<i>Non-formal Education</i>
NGO	<i>Non-Government Organisation</i>
NITEP	<i>Northern Integrated Teacher Education Project</i>
NTI	<i>National Teacher's Institute</i>
ODL	<i>Open and Distance Learning</i>
OL	<i>Open Learning</i>
PREST	<i>Practitioner Research and Evaluation Skills Training</i>
PTA	<i>Parent-Teacher Association</i>
RA	<i>Researcher</i>
SOLO	<i>Sudan Open Learning Organisation</i>
TDMS	<i>Teacher Development and Management System</i>
UBE	<i>Universal Basic Education</i>
UNESCO	<i>United Nations Educational, Scientific and Cultural Organisation</i>
UNISE	<i>Uganda Institute for Special Needs Education</i>
WIFIP	<i>Women in Fishing Industry Project</i>

## Executive Summary

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The objective of this study was to reveal areas in which training teachers by distance education (DE) methods can reach beyond the immediate audience to assist development in the wider community. The conclusions reached will be of interest to policy makers in ministries of education, practitioners in training institutions and regional/local education offices, and funders of educational projects. The findings should enable the added value of distance education to become a further consideration in the development of teacher training programmes.

Studies were undertaken in three countries, Guyana, Uganda and Nigeria, each with differing experiences of using distance education to train their teachers. In-country studies were coordinated by local researchers, with a view to the research contributing to the professional development of those implementing it. The capacity building nature of the research was considered to be very important.

The research objectives were to:

- (i) show how training teachers using distance education methodologies can impact on their community and their role in it;
- (ii) improve understanding of how the infrastructure of a distance education programme for teachers contributes to the community inside and outside school;
- (iii) compare the community development impact of teacher education at a distance in three countries, each at a different stage of development and scale, and serving widely differing communities.

The key research questions were formulated as follows:

1. Does training at a distance empower the teacher in the school/educational system?
2. Does training at a distance empower the teacher in the local community?
3. Who, apart from the teacher, is developed due to the training operation, e.g. local printers, support network, Teacher Training Colleges, District (local) Education staff and others?
4. Have the community perceptions of teachers changed and in what ways?
5. How are the resources developed for training teachers being used? How widespread is their use?
6. What is the potential of teacher education at a distance for community development beyond the immediate beneficiaries?
7. How have other stakeholders in the programme been affected?

The research does not aim to make a comparison between teacher education delivered at a distance and conventional face to face teacher education. Nor does it set out to evaluate distance education as a mode of delivery. Rather, the research documents the impact on the local community, as follows:

- On the whole DE study was found to be conducive to family stability and tranquillity. This was considered very important by teachers, head teachers and other members of the community, given the critical roles and obligations embodied in the customary extended family. Not every aspect of studying at home was considered positively, however. As might be expected, current students indicated that they were spending less time with their families, and that study strained relationships with spouses.
- Increased involvement of the teachers in community activities, such as community development associations, youth clubs, religious bodies and local politics, was recorded.

- The pride, respect and confidence the community has in these teachers was found to have grown in recognition of their success in training.
- Local entrepreneurs and business people also recognised financial opportunities.

It also documents the effect on the school/educational system, where there is evidence of real empowerment of teachers.

A wide range of indirect beneficiaries from DE delivered teacher education programmes are identified in the three countries, including:

- conventional teacher educators;
- local head teachers, teachers, inspectors and local administrators.

Extensive use of DE material resources and improved competence of these cadres were recorded.

A number of implications are discussed, including:

- personal and professional development;
- cost;
- outreach and, in particular, student support, both pastoral and professional, as this is where education and community meet.

Having established that DE can impact on the community, ways of harnessing this potential are discussed. Possibilities include a number of ideas, from adjustment of course content to the use of the DE infrastructure and networks as innovative methods of supporting community development. A case study of a literacy programme in Sudan is included to demonstrate opportunities for using DE models for other than direct delivery of DE, if distance educators and community development specialists work together. The potential for using DE and its infrastructure to assist in meeting the MDGs is recognised.

Implications are noted for schools and teachers at the local community level, for national and institutional policy makers, for teacher education as a whole and for the future research agenda.

## Chapter 1: Introduction

---

For 40 years (Young et al 1991) distance education (DE) has been used to alleviate shortages of primary school teachers. In his review, Perraton gives us a clear picture of the achievements of distance education's role in training teachers:

Distance education has gone some way to establishing itself as a significant and legitimate way of training teachers. The evidence, on its success, is probably no worse than the comparable evidence on conventional teacher education, and, in some cases, it can have economic advantages. And yet it remains on the sidelines. (Perraton, 2000:82)

There remain a number of challenges facing DE as it relates to teacher education. For example, how it should deal with the practical activity of teaching and the need for mechanisms facilitating two-way interaction between students and tutors. Programmes have found and continue to develop new ways of dealing with such issues. In doing so they reach out into the community in ways yet to be explored and evaluated from the viewpoint of community development. The nature of the student support system is vital in this matter.

We know from the Northern Integrated Teacher Education Project (NITEP) in Uganda (Wrightson, 1998:24-29) that the 'culture of care' NITEP developed played a significant role in the trainee teachers' progress through the course, but this culture only worked because the people who made up the support structure were trained appropriately. In NITEP, this meant keeping all management staff and 700 field tutors mobile and in touch with issues affecting students' learning. To facilitate the operation required specialised training of appropriate personnel and successful communication between headquarters, regional centres, district Primary Teachers' Colleges, field personnel and students. Inevitably this had an impact in the wider community, but what form did this take? How do other DE programmes impact on the community?

Also, DE enables teachers to train without leaving their schools and homes – what does this mean to their communities? Are teachers trained in this way more likely to remain in teaching than others who train fulltime at college? There are no clear answers to these questions in the literature and could the use of DE for teacher education offer benefit to the local economy?

For a distance teacher education programme to be successful not only must it provide materials of the highest quality and be cost effective; it should use local resources, involve the community (social, school and college), develop human resource in the schools and colleges (tutors) and in the district education offices (tutors/administrators), and involve the education authorities at all levels. It must not only provide efficient delivery but also have excellent formal and informal student support mechanisms. It must be integral to the community it serves.

If the system is truly integrated it will impact on the community. This research will indicate the extent to which impact is positive and a force for community development.

### 1.1 Study objectives

The objective of this study was to reveal areas in which training teachers by using distance education methods reaches beyond the immediate audience to assist development in the wider community. We wanted to make this research available to policy makers in ministries of education, practitioners in training institutions and regional/local education offices, and funders

of educational projects, with a view to the added value of distance education becoming a further consideration in the development of teacher training programmes. Clarifying the impact that training teachers at a distance has on the community will make it possible to integrate teacher education with other community development initiatives to a greater and more beneficial extent.

Studies have been undertaken in three countries, Guyana, Uganda and Nigeria, each with differing experiences of using distance education to train their teachers. In-country studies were coordinated by local researchers, with a view to the research contributing to the professional development of those implementing it. The capacity building nature of the research was considered to be of overriding importance.

It should be noted that this research exercise does not aim to compare DE methodology with conventional teacher training methods. What it does aim to do is to identify and highlight what (if anything) it is that DE teacher education, and its various systems, has that conventional teacher education does not. This is especially so in respect to its contribution and profile within the local and wider communities. Nor is the study a comparison of impact over time. It records information from one point in time only. Trends and changes are not recorded or analysed.

## 1.2 Publication of the research

Reporting of this research has been divided into two parts. The first part is this synthesis report bringing together the lessons learned from the three country studies. The second part comprises the country studies, which together with this report are published separately on IEC's website at <http://www.iec.ac.uk/research.html>.

## 1.3 Study team

The research was carried out in a similar manner to that previously used successfully by IEC in Guyana (Binns and Pennells, 2000). The basis of the model is that research is carried out by practitioners and stakeholders supported by technical assistance from outside and within country. The team had the following makeup:

- *lead researchers*; one based in the UK, playing a coordinating/counter parting-at-a distance role and one roving, playing a mentoring and counter parting role;
- *research coordinators*; one in each location;
- *research assistants/practitioners*; several in each location;
- *research participants*; the practitioners and stakeholders involved in the participatory research, consultation and analysis activities;

The team members were:

- Ms Deborah Thomas, Tutorial Support Coordinator, Guyana Institute of Distance Education, Guyana;
- Mr Unwaha Yahaya Ismaila, Director Planning Research and Statistics, National Teachers' Institute, Kaduna, Nigeria;

- Mr Nathan Sewanyana Senkomago, Senior Lecturer, Kyambogo University (formerly Institute of Teacher Education Kyambogo), Uganda;
- Dr Tony Wrightson, Senior Consultant, IEC;
- Dr Felicity Binns, Executive Director, IEC.

Participating institutions were:

- in Nigeria, the National Teachers' Institute (NTI) which has been involved in teacher education through distance education for well over 20 years;
- in Uganda, Kyambogo University (KU), formerly the Institute of Teacher Education Kyambogo (ITEK), which provides pre-service and in-service training in teacher education;
- in Guyana, Cyril Potter College of Education (CPCE) and Guyana In-service Distance Education Unit (GUIDE). CPCE is responsible for pre-service training of teachers in Guyana.





## Chapter 2: The Context of the Research

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### 2.1 The use of distance education for teacher education in the developing world

Many governments in the developing world have sought to solve problems of untrained and undertrained teachers through the use of DE. This has come about in response to the situation facing these governments. Perraton and colleagues usefully capture the issue.

In much of the south and sub-Saharan Africa and south Asia, problems of teacher supply, of four kinds, threaten the attainment of the (international development) education targets. First, there are shortages of teachers. While school enrolments generally grew in the 1990s, teacher numbers only just kept pace with them; indeed, in six Commonwealth African countries pupil numbers were growing faster than teacher numbers. Meanwhile, AIDS is reducing the life expectancy of teachers and so increasing the numerical demands. With all the other pressures on educational budgets, it seems unlikely that teachers' colleges can be expanded at the rate necessary to meet these demands. Teacher shortages continue to dominate the educational landscape.

Second, in many but not all countries, female teachers are in a minority in primary schools. Progress in getting more women into the profession is slow; in Africa the proportion of women rose from 39.4 percent to 43.3 percent between 1990 and 1997, while in south Asia it rose only from 28.0 to 29.6 percent.

Third, even where there are enough teachers, too many of them are untrained or undertrained, and the quality of training is often itself inadequate. A number of studies have found little difference between the effectiveness of trained and untrained teachers. 'About half of the teachers in developing countries are unqualified in terms of their own country's formal standards for teachers' education. Many teachers have little more than secondary education themselves. Teaching methods are often old fashioned, with too much focus on rote learning' (DFID, 2001:9).

Fourth, in many countries, there is a national desire not just to raise the quality of the teaching force to match the present demands on them but also to change teachers' jobs as their host societies are changing. [...] In transition countries, society is expecting teachers to change their approach as education itself is being reformed, within the context of social change. And these changes in role and changes in expectation are likely to affect both the initial education of teachers and programmes of continuing professional development (Perraton et al, 2002:7).

In 1990 Andrews et al suggested that as many as half the teachers in the developing world were unqualified according to the standards set by their countries. In the poorest countries this could have been even higher. To upgrade these numbers of teachers is an enormous task both logistically and financially. For example there are some 438,000 primary school teachers in Nigeria and around 108,000 in Uganda (UNESCO, EFA country reports). With the Education For All (EFA) targets to meet and the high cost of the traditional approaches to teacher training, governments have looked for alternative cost effective and cost efficient models for training

teachers. As noted by Robinson (1997), not only is conventional training for teachers expensive, but it cannot quickly cope with the very large numbers involved:

In-service crash training programmes of a conventional kind can be too short to have impact, too expensive and too slow in reducing the numbers of teachers needing training or retraining, though they have some potential for achieving limited and specific targets in curriculum change (Robinson, 1997:122).

In the last decade, DE for teacher training has been widely used in many developing world countries, including the three in this study. This use has been driven by the perceived advantages of open and distance learning:

First is its economy: school buildings are not required and teachers and administrators can be responsible for many times more students than they can accommodate in a school. Its second main advantage is its flexibility: people who have jobs can study in their own time, in their own homes, without being removed from their work for long periods. Its third advantage is its seven league boots: it can operate over long distances and cater for widely scattered student bodies (Dodds et al., 1972:10).

In each of the three countries studied, the history of DE for teacher training goes back a long way, but over recent years the interest in DE projects and programmes has grown as governments, international agencies and donors have recognised the potential of the methodology to assist in the achievement of EFA. Interest has also been fuelled by advances in information and communication technology (ICT).

DE is attractive because it offers a way to deal with large numbers of learners and has been seen as cheaper than traditional teacher education. Though it is difficult to get accurate costs, such programmes are not, in fact, cheap. However, there is evidence that using DE to train teachers can reduce the cost per successful student by a third to a half (Perraton, 1993, 2000).

Governments are also attracted to DE for reasons of access. In remote rural areas, where it may be difficult to recruit and retain teachers, they can study without leaving the job or home. For example in Guyana much of the population is concentrated in the coastal regions, but there are significant numbers of teachers in need of training who are stationed in remote rural riverine and mountainous regions. In Guyana's hinterland regions only 30 per cent of teachers are trained (UNESCO, EFA country report). DE models have been designed to address the needs of these teachers, but even DE faces challenges of access here when it comes to student support.

The greatest challenge to DE teacher education 'is to set in place effective arrangements to support students and, in particular, to supervise their classroom practice' (Perraton, 2000b:8). Effective arrangements can be very costly and may even 'approximate those of conventional delivery' (Mattson, 2006). Getting the balance right between the cost and the in-the-field provision is not easy. Distance education programmes are frequently designed in a hurry in response to government wishes. Early emphasis may be put on the development of materials, leaving plans for student support behind. Funding for capacity building and training in ODL methodology, both centrally and at the field level, may also be overlooked until late in the day

(Binns and Bradley, 2004; Binns, 2004). Support and assessment in the field require the successful coordination of players at many levels, calling on district education authorities, colleges and their tutors, head teachers and teachers. This complex system requires careful planning if it is to ‘provide enough face to face support to gain all its benefits while not allowing it on such a generous scale that the costs become unupportable’ (Perraton, 2000b:8).

Teacher education through DE in the developing world is offered by a variety of organisations including open and conventional universities (such as Kyambogo University, formerly Institute of Teacher Education at Kyambogo (ITEK)), which was originally designated for teachers only), designated teacher institutes (such as the National Teachers’ Institute (NTI)) and donor funded projects (such as NITEP in Uganda and the Guyana In-service Distance Education (GUIDE) project in Guyana).

## 2.2 Research in teacher education and distance education for teacher education

Discussion of the impact of teacher education at a distance on development in the community is timely for developing world countries and for development agencies, for a number of reasons. Firstly, there is growing recognition of the value of working at community level to make change; secondly, DE is being used more and more widely around the world and there is need to provide policy makers with informed guidance; thirdly, DE is regarded as a possible means of provision to marginalised and disadvantaged communities by overcoming the issue of access; fourthly, DE is increasingly considered by both donors and governments as a means to achieve the numbers of teachers needed to reach the EFA and MDG goals (see later section); and fifthly, there is a general international shift towards more school-based teacher education.

Teacher education in the developing world has received considerable attention recently. In particular the Multi-Site Teacher Education Research project (MUSTER) – a four-year programme of research focusing on insights from Ghana, Lesotho, Malawi, Trinidad and Tobago and South Africa – has been disseminated widely (Lewin and Stuart, 2003).

The challenge to produce enough teachers to meet demand requires Africa to increase the number of trained teachers by several times (Lewin, 2002). The findings, however, are that policy tends to be incoherent and that planning is poor (Lewin and Stuart, 2003). The project notes that policy needs to be generated locally, as there is not one single right way of implementing teacher education. It must respond to local needs and issues and enable effective and efficient use of the education budgets, including utilisation of resources provided by the development partners and donors.

Lewin and Stuart also note a number of other issues affecting teacher education in sub-Saharan Africa. Student teachers often have low levels of subject knowledge as they struggle to complete secondary schooling. Teaching is mostly done in a second language and the skills in that language are often poor. Curricula are rarely relevant and do not often reflect local needs. Teaching practice assessment may be only cursory, not surprising when colleges of teacher education and schools are often professionally isolated from each other. Lack of training and support for teacher educators themselves also contributes to the low quality of teacher education in these countries. A recent UNESCO EFA Global Monitoring Report provides further evidence

that teacher education is the focus of much attention as countries endeavour to improve the quality of their education systems (UNESCO, 2005).

It is against such a background that DE methodology is implemented. Over recent years much has been written about teacher education delivered through DE (Robinson and Latchem, 2003; Perraton, 2003; Perraton et al, 2002). The advent of high technology solutions to provision of teacher education has also sparked further interest in non-conventional teacher training (Leach et al, 2002; UNESCO, 2002; Yates, 1993).

Some literature on teacher education by distance education does exist for each of the countries studied (*Nigeria*: Ajayi, 1997; Yaya, 1992; Ekpunobi, 2002; *Uganda*: Ocitti et al, 1996; Robinson and Murphy, 1996; Wrightson, 1998; *Guyana*: Binns and Pennells, 2000; Thomas, 2000; UNESCOa, nd; UNESCOb, nd), though remarkably little done by local researchers is available internationally.

Though renowned for its reach in terms of numbers and apparent cost effectiveness, DE is not without problems of its own. As the school or field based model is developing (Mattson, 2006), considerations such as ‘the scarcity of school locations representing good practice relative to the numbers of trainees, the shortage of those likely to possess mentoring skills at school level and their willingness to invest substantial time in the activity, and the difficulties of moderating school-based experience and ensuring appropriate and valid assessment and certification’ (Lewin and Stuart, 2003, xxix) remain.

Learner support and teaching practice are generally considered to be the weakest points in distance education for teachers:

By nature, distance education has a dispersed organisational structure and delegates responsibilities for the programme – administrative, academic content, production and student support – among a variety of personnel and institutions at different central, regional, district and local levels [...] This dispersal can crucially affect both the coherence and cohesion of a programme. The supervision of a teaching practice component, among a geographically wide range of sites, is of particularly challenging logistical complication and had been described elsewhere as the ‘Achilles’ heel’ of teacher education by distance. (Creed, 2001: 17)

Mattson’s research (op.cit) highlights the reasons for weak learner support and poor assessment practice including that planners expect too much from, and plan too little for, distance education and the political pressure on education ministries to meet growing demand for education without incurring new costs or diverting resources away from elite patronage networks.

More research is needed to inform planners and policy makers alike, in order that policy and strategy reflect realistic aims for DE and that implementation of these aims is fully integrated into the current educational systems.

### 2.3 The Millennium Development Goals

The targets set by the Millennium Development Goals (MDGs) are ambitious and the role DE might play in them is not fully clear. It is clear, however, that the MDGs relating to education ‘cannot be met unless the supply of teachers is adequate to keep pupil-teacher ratios within reasonable limits, and the quality of their training is sufficient to result in minimum acceptable levels of pupil achievement’ (Lewin and Stuart, 2003: ix).

**Table 2.1 Summary of the Millennium Development Goals**

Issues	Goals
Extreme poverty and hunger	Halve the proportion of people below the poverty line by 2015. Halve the proportion of people who suffer from hunger.
Universal primary education	Achieve universal access to primary education by 2015.
Gender equality	Eliminate gender disparity in primary and junior secondary education by 2005. Achieve equal access for boys and girls to senior secondary by 2005.
Under-five mortality	Reduce under-five mortality by two-thirds by 2015.
Maternal mortality	Reduce maternal mortality by three-quarters by 2015.
HIV/AIDS and malaria	Halt and reverse the spread of HIV/AIDS by 2015. Halt and reverse the incidence of malaria.
Ensure environmental sustainability	Integrate the principles of sustainable development into country policies and programmes and reverse loss of environmental resources. Halve the proportion of people without access to safe drinking water by 2015.
Global partnership for development	Deal comprehensively with debt and make debt sustainable in the long term.

At first glance it is obvious where DE has a role to play in the achievement of these goals, i.e. in those that concern educational opportunities. In particular its role in teacher education is recognised, as discussed above. However, there may be other ways in which DE can make a difference. The problems of poverty and hunger, lack of basic education, gender inequality, high infant and maternal mortality rates and poor health are at their worst in the most deprived and marginalised communities of sub-Saharan Africa. Without improved effectiveness in addressing these issues at community level, it will never be possible to achieve the MDGs. Models of open

and distance learning (ODL) reach into these communities. For example, teacher education through DE, nonformal education (NFE) and open learning (OL) are used by NGOs, governments and institutions as vehicles for change. Such programmes can be harnessed to impact on health, the environment, literacy, numeracy, health and skills, and can empower participants to engage actively in community development. This research seeks to identify how training teachers through DE affects local communities and to identify preferred directions and practice for supporting community-level development through ODL.

## 2.4 Institutional and country comparisons

Guyana, Nigeria and Uganda were selected as the countries to be included in this study because they have widely varying experiences of distance education for teacher education. A detailed discussion of the history is included in each country report (Thomas, 2004; Senkomago, 2004; Ismaila et al, 2004). What follows here is a brief comparison of histories and notes on institutional roles.

The National Teachers Institute (NTI) has been involved in teacher education through distance education for 30 years. It was established specifically to apply distance education to teacher education in response to the need for more teachers when Nigeria adopted a policy of Universal Primary Education. It has continued to develop and deliver courses and has reached several hundred thousand learners. NTI therefore has a long history of, and well established mechanisms in, delivering to distance educators.

Kyambogo University (KU) (formerly ITEK) provides pre-service and in-service training in teacher education in Uganda. It is also responsible for curriculum development and examinations. ITEK has been involved with a number of distance teacher education initiatives, including the Mubende Integrated Teacher Education Project (MITEP), the Northern Integrated Teacher Education Project (NITEP) and the Teacher Development and Management System (TDMS). Until recently it did not deliver its own courses, but in the late nineties it made the decision to develop a Diploma in Primary Education External (DEPE) for distance delivery. KU's first hand experience of delivering distance education courses was limited, but it was able to recruit an experienced head for its distance education unit. Its experience remains largely in conventional teacher education, though the Department of Distance Education (DDE) is growing, especially since the recent merger with the Uganda Institute for Special Needs Education (UNISE).

The Cyril Potter College of Education (CPCE) is responsible for pre-service training of teachers in Guyana. It has recently become involved in a project funded by the Canadian government. The Guyana Basic Education for Teacher Training (GBET) project is developing materials for teachers to train at a distance. The Guyana In-service Distance Education Unit (GUIDE) was established specifically to use DE to raise the levels of teacher education so that teachers could attend college. It is a small unit with considerable experience in course development and delivery for small numbers of learners. GUIDE's materials are being used by the newer project in further regions of the country. The support and delivery mechanisms are being developed and adapted as progress is made. At the time of this study CPCE had little experience of distance education, though it was able to develop and build upon the experience of GUIDE.

In all three institutions the teacher education courses have been based on printed materials supported by some face to face activity at weekends or in the school vacations. The NTI materials are supported by some small amounts of audio, radio and video. The following table summarises and compares data from each of the countries studied.

Table 2.2 Country Data

Indicator	Nigeria (NTI)	Guyana (GUIDE)	Uganda (KU)
Size of country*	924,000sq km	215,000 sq km	236,000 sq km
Population*	108,200,000	700,000	24,700,000
Percentage untrained teachers	In 1996 only 21% of teachers were qualified to the national minimum of Nigeria Certificate in Education*	Average 50% (1998) (varying between 40 and 81% depending on the region) of approx 4500 teachers**	In 1998 55% of primary school teachers were qualified to the required academic level *(Table 13)
Language of instruction	English	English	English
Institution starts DE for teacher education	1970	1995	1957
Motive for establishment	Upgrading unqualified teachers in response to UBE in 1975	Upgrading unqualified teachers to Caribbean Examination Council level for entry to teachers training college	Teacher training pre-service
Single or dual mode	Single mode	Single mode	Dual mode
DE courses offered	Teachers' Grade II Certificate (TCII), Nigerian Certificate in Education (NCE), and Pivotal Teacher Training Programme (PTTP)	Modules in English, Science, Mathematics and Education at lower secondary grades	Diploma in primary education (DEPE)
Number of students doing DE programmes	Tens of thousands	A few hundred	A few thousand
Technology	Print based, some radio/audio/video	Print based	Print based
Student support	Study centres used at weekends for tutorials, revision and examination	Face to face fortnightly varied according to geography	Short face to face in vacations including some assessment
Programmes covered by study	NTI courses	CPCE and GUIDE courses	TDMS, NITER, MITEP and DEPE

Sources: \* UNESCO EFA year 2000 assessment, country reports

\*\*Digest of educational statistics of Guyana 1977-1998, Ministry of Education (1998)



## 2.5 Institutional roles in the study

NTI, GUIDE/CPCE and ITEK hosted the in-country research operation. Responsibilities included:

- release of personnel to undertake the study. In essence this meant that the in country research coordinator (CC) was based in her/his home institute and was able to call on the resources of the institute to facilitate the research;
- the institutes made the selection of CCs and these in turn selected the researchers (RAs) with whom they worked thereafter;
- short workshops were hosted in each place for planning and preparation of data collection tools and for collation and analysis activities;
- facilitating the ‘piggybacking’ of research staff on other activities to make savings in the cost of travel and the dispatch, distribution and collection of questionnaires;
- assisting in the administrative and financial tasks associated with the research project activities, including budgeting, reporting and accountability;
- senior staff playing a mentoring role to the in-country research coordinators;
- final design of data collection instruments, distribution and collection of data, collation and initial analysis of data;
- country report writing.

IEC’s role was to lead and coordinate the research overall. Responsibilities included:

- provision of lead researchers (LRs);
- raising funds and coordination with the funder, report writing, financial accountability and general communication, including getting agreement to changes in the use of the budget and timing of the project;
- management and coordination of the funding, including dispersal of funds and reckoning of accountabilities;
- hosting training/planning workshops in the UK;
- leading/facilitating workshops;
- development of a research manual;
- playing a mentoring/training role with the CCs;
- in country support to the Ugandan CC;
- support at a distance to Nigerian and Guyanese CCs through email;
- feedback and support to report writing processes;
- synthesis report writing.

## 2.6 Capacity building and professional development

It is still the case that, though critical evaluations probably exist as confidential reports or lost in dusty cupboards, there is a lack of recently published research in distance education for teacher training in developing countries, particularly from local researchers themselves.

Perraton et al explain:

The dearth of evaluative literature seems partly to do with the difficulties of assessing a complex and interrelated range of factors related to effectiveness. The way that distance

education disperses responsibility for a programme among a range of partners, some times on a large scale over distance – for student support, administration, tutoring, course production, delivery and assessment – presents a number of logistical and methodological challenges for researchers. In many countries it is limited by research capacity and expertise, limited research culture and limited funding. [...] Funding may be the key: education spends less on research and evaluation than many other areas of human enterprise. The result is that policy makers have very little critical information on which to make informed decisions...

(Perraton et al, 2002:57)

Local resources of both funding and time are stretched and often the emphasis is on developing, producing and delivery of the model rather than devoting energies to evaluation. Developing research often remains a low priority locally. There is a need for dedicated institutional capacity within the training colleges, ministries and universities. Bown argues for African universities having 'specific services to provide to the education system itself – the training of teachers, researching policy alternatives, evaluating and monitoring performance and developing appropriate curricula' (Bown, 2005:2). The Commission for Africa also advocates higher education and research:

Higher education and research institutes can also improve the accountability of governments and build participation and citizenship, as well as providing research that supports the vibrant debate that can greatly improve the effectiveness of government policy and other services.

(Commission for Africa, 2005:137)

With the need for more in-country-led study in mind, the research was designed with the intention of working with institutions established in the delivery of teacher education, in order to build institutional capacity for research and develop a number of individuals' professional understanding and practice in research methods. These were not just agents involved to undertake the data collection, but part of a partnership in the planning, implementation, analysis and write-up of the research. The process was not one directional, for the benefit of researchers in the North or the funders, but a collaboration in learning and gaining from reflection and cross-fertilisation, made possible by involving researchers from the three countries. It was also more than a simple exchange; by fulfilling the task the researchers had to practise evaluation and reflection and then act on it. The research project itself had a legitimating role, as it provided funds for the activity and elevated it to a central position in institutional activities and workplans. It engaged others in the process, including teachers. It impacted vertically and horizontally through the system and may have led to qualitative improvements. It provided a mechanism for teacher educators to engage with teachers in a non-punitive manner, while at the same time offering opportunities for them to benefit from their own self-evaluation and reflection.



## **Chapter 3: Research Design and Methodology**

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The research was designed with the intention of building local research capacity and developing the local researchers, the Country Coordinators and the Research Assistants (CCs and RAs) professionally, through work on the research and with the Lead Researchers (LR's)

### **3.1 Formulation of objectives and the design process**

The idea for the study originated from observations about the impact of teacher education programmes using DE, beyond the conventional indicators associated with teaching and classroom performance. The question was raised whether the methodology often employed in distance teacher education, and the delivery models developed (usually involving in-service learners), had an unrecognised impact in areas beyond the traditional and at a wider community level. This idea was juxtaposed with IEC's experience in a number of DE teacher education programmes and institutions, including those in Guyana, Nigeria and Uganda ultimately chosen for this research.

Each of the three contexts chosen is distinctive and unique in their respective local environments, resources and needs. Some (like the courses offered by NTI in Nigeria, and the DEPE course offered by KU in Uganda) are programmes strongly related to institutions and their traditions, while others, as in the case of other Ugandan programmes (NITEP, TDMS) and the GUIDE programme in Guyana, are project-focused and responding to one-off or cyclical needs. All, however, have been driven by the desire to produce quality teachers using models and methods that are credible and sustainable. These three disparate training contexts were selected to explore a series of questions whose answers would elucidate the impact of this teacher education methodology.

In consultation with the three country-based institutions a set of research objectives and key research questions was developed.

The research objectives were:

- to improve understanding of how training teachers using distance education methodologies impacts on their community and their role in it;
- to improve understanding of how the infrastructure of a distance education programme for teachers contributes to the community inside and outside school;
- to compare the community development impact of teacher education at a distance in three countries, each at a different stage of development and scale, and serving widely differing communities.

A further objective was to build capacity and promote professional development in research techniques and improve understanding of DE for teacher education.

The key research questions were formulated as follows:

- Does training at a distance empower the teacher in the school/educational system?
- Does training at a distance empower the teacher in the local community?
- Who, apart from the teacher, is developed due to the training operation, e.g. local printers, support network, Teacher Training Colleges, District (local) Education staff and others?
- Have the community perceptions of teachers changed and in what ways?

- How are the resources developed for training teachers being used? How widespread is their use?
- What is the potential of teacher education at a distance for community development beyond the immediate beneficiaries?
- How have other stakeholders in the programme been affected?

### 3.2 Definitions

What is meant by empowerment in this study? Empowerment is a concept that signifies the ability to do a job better and with more confidence, being recognised for what is happening at work and having the ability to improve one's life by having a voice in the things that affect it. In other words empowerment is the ability to take more control of one's own life and to make informed decisions about it.

The research looks at how individuals and communities engage in learning processes in which they create, appropriate and share knowledge, tools and techniques, in order to change and improve the quality of their own lives and societies, i.e. both the teachers' professional and their personal lives. Through empowerment, individuals not only manage and adapt to change, but also contribute to and generate changes in their lives and environments. This is an important element of development, being the process by which people take control and action in order to overcome obstacles.

What does community mean in this study? Community may be defined in a number of ways. As in a profession: the body of people in a learned occupation; or a residential district: a district where people live; or a group of people living in a particular local area. It is about sharing an element of life, which may vary widely depending on situation, interests and values. In other words a community is a specific group of people, often living in a defined geographical area, who share a common culture, values, and norms and who are arranged in a social structure according to relationships developed over a period of time. There are several levels of community considered in this research: the school/educational community which moves from the classroom to inspectors and tutors and colleges; the geographical community that is the local environment where teachers live and socialise; and the family.

### 3.3 The approach

The study developed an approach that was participatory, in that the people involved in teacher education, and teachers themselves, had a voice and were involved in the research process. Essentially, the research was undertaken by practitioners and stakeholders in each of the three countries. They supported each other by sharing ideas and experiences, and were supported, in turn, by the IEC co-ordinating staff. This collaboration and the sharing of findings was an important part of the research methodology. Despite on-going communication problems, and the inevitable divergence of implementation strategies (including variations in respondent groups and data collection methods and instruments) between the three countries, the approach was used throughout.

The initial impetus for action came with the appointment of the three CCs, working with two LRs, and supported in each country by a mentor of considerable teacher education and research standing (e.g. an institutional head). The CCs were selected by their organisations on the basis that they were experienced teacher educators, with some understanding of the action and participatory research methodology to be employed by the project. The CCs from Guyana and Nigeria work in distance education for training teachers, and the Ugandan CC trains teachers through the conventional mechanism.

The design process involved, at first, bringing the CCs and LRs together in order to plan, in detail, the methodologies and implementation strategy with which to take the research forward and to draft the design of the tools needed.

This work was then taken back to the countries, where local research teams were identified and where the research tools were refined to suit the context (with its distinctive target respondent categories) and the characteristics of the DE teacher education programmes being delivered there.

There followed the training of country research teams; testing the implementation of the agreed strategy, with its research tools; assessing these initial experiences; and proceeding with appropriate refinements and modifications. Following the collection of data, initial collation and analysis were undertaken by the in-country teams.

CCs and LR's were brought together again after a year, to agree on methods for presenting data, as well as to share initial findings, and to evaluate the compatibility of findings. A country report format was also agreed.

Following this, country data were analysed, compiled and presented in a country report. These were used to prepare this synthesis report, which discusses and compares the findings, so as to generate conclusions on the impact of this DE teacher education methodology on the wider community, and to identify the implications of our findings for stakeholders in the teacher education process.

### 3.4 The research handbook

One of the outputs of the first workshop was a research handbook<sup>1</sup>, developed by the team as a tool for the in-country implementation of the study. In it the three research objectives are further defined and key questions are identified and indicators developed for each of them. A matrix is developed which includes a series of derivative sample questions for research tools. The respondents are also identified and suggestions made for administering the questions. The indicators developed by the CCs and LRs for answering the key research questions are summarised in Table 3.1.

The refinement of indicators was undertaken in order to develop a shared understanding of the research task. Thus the basis from which the CCs started their task in-country was similar. The

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<sup>1</sup> The research handbook is available from the authors on request.

differing contexts and programmes (embracing, as they did, differing local customs, systems and societal organisation) were recognised. It was not always possible to ask the same questions in each country, nor to identify exactly comparable categories of participant respondents. As part of the capacity building exercise the local teams were also encouraged to develop the data collection tools with reference to their home context, with only advice rather than direction from the LRs.

The research activities may be summarised in the following steps:

- development of a research design in collaboration with the partner institutes, and identification of CCs;
- convening of CCs and LRs for detailed planning and design work (Research Team Workshop 1) and development of a research handbook including guidelines for country level implementation;
- selection and training of research teams in each country by CCs. Testing of methodology and tools and sharing of initial experiences with each other and LRs;
- refining methodology and tools and implementation of data collection process with identified target respondent groups by CCs and RAs (and LR assistance in Uganda);
- refining methodology and tools and implementation of data collection process with identified target respondent groups by CCs and RAs (and LR assistance in Uganda);
- analysing data and draft presentation of initial findings by CCs and RAs;
- convening of CCs and LRs (Research Team Workshop 2), to share preliminary analyses and findings, and to plan for the design and preparation of country reports and synthesis report;
- preparation of country reports by CCs;
- preparation of synthesis report;
- dissemination of findings.

### 3.5 The research methodology

Descriptions of the methodology are to be found in the country reports. Here it is worth noting its capacity building and professional development aspects. A participatory action research approach was taken to promote the professional development of those implementing research, through processes of sharing, promoting, mentoring and being mentored, and through the preparation of findings. This methodology was considered appropriate to the achievement of the planned outputs for the research exercise as this was to:

- be a comparative study (comparison from one country to another) of the community development impact of teacher education at a distance;
- be a collaborative study – fostering links between teacher educators, researchers and institutions in Nigeria, Uganda, Guyana and the UK;
- enhance and develop skills in participatory action research in the CCs and RAs.

Thus the intention was to establish a useful piece of research around which it was possible to develop local capacity and perhaps institutionalise the research ethic.

Table 3.1 Summary of Indicators for the Key Research Questions

Key questions	Indicators	
Does training at a distance empower the teacher in the school/educational system?	At classroom level	<ul style="list-style-type: none"> <li>• Teaching performance/effectiveness/rating.</li> </ul>
	At school level	<ul style="list-style-type: none"> <li>• Participation/initiative in school activities;</li> <li>• Interaction(s) with colleagues;</li> <li>• Level(s) of responsibilities in school decision; making/administration/management/PTA.</li> </ul>
	In wider education system	<ul style="list-style-type: none"> <li>• Participation in other education roles;</li> <li>• Appropriateness of DE training to current roles or aspirations;</li> <li>• Others' perceptions of the distance trained teacher.</li> </ul>
Does training at a distance empower the teacher in the local community?	Local level	<ul style="list-style-type: none"> <li>• Contribution and role in family activities/cohesiveness.</li> </ul>
	Wider community	<ul style="list-style-type: none"> <li>• Interaction/relationships with peers/friends/others in community;</li> <li>• Participation/initiative in community activities;</li> <li>• Level of responsibilities in the community;</li> <li>• Community perception of teachers.</li> </ul>
Who/what apart from the teacher is developed due to the training operation?	Teacher training	Personnel capacity, materials, supervisory/curriculum development, equipment/resources/facilities, income.
	Infrastructure	Transport, printing, provision of services (entrepreneurial), communication systems.
	Support network	Centre/school upgrading, physical (eg furniture) and personnel.
	Local education staff	DE roles.
	Employment opportunities	Types of employment.
	Use of DE trained teachers for other roles/functions	Types of role/responsibility.
How are the resources/capacity developed for training teachers being used? How widespread is their use? What is the potential for their use?	Media	Print based materials and other.
	Resource persons	Other roles/responsibilities.
	Infrastructure	Resource centres, transport, printing, typesetting, facilities.
	Users	Targeted beneficiaries, non-targeted beneficiaries.



*The respondents*

A series of respondents were identified to whom the key research questions would be administered by means of appropriate tools, according to the local context. In Table 3.2 a matrix presents these groups, using the four categories defined by Nigeria, and relating the other two countries to those.

**Table 3.2 Summary of Respondent Categories**

	Nigeria	Guyana	Uganda
School based	Current/graduate trainees Teacher colleagues Head teachers	Past students of DE upgrading/training programmes Current students Head teachers of schools with past and current DE students	Students and graduates of DE programmes
Supervisory	Local education authority (Secretaries and Inspectors) State Inspectors and Officers	Other educators/personnel involved in the training programme Tutors, mentors, colleagues, education officers	District officers of education Heads of educational institutions
Programme resource persons	Heads of institutions Course supervisors and tutors Course writers and editors Examiners	Staff of the DE units (providers of the programmes)	Teachers and tutors Auxiliary staff in educational institutions
Community based	Community leaders School parents/teachers Civil Society leaders	Captains of communities Members of PTAs Pastors/priests Village elders Entrepreneurs	Local leaders/councilors Local entrepreneurs

Sources: Thomas (2004), Senkomago (2004) and Ismaila et al (2004)

This indicates a consistency of targeted information sources. There are inevitable differences because of the varying administrative structures, institutional and programme histories, societal and customary structures and player roles in the three countries. Where Nigeria researched the impact of DE teacher education programmes delivered by a single institution, KU in Uganda, at the other extreme, researched the impact of programmes delivered by a range of projects and institutions (see Table 2.2).

*Data collection*

During the first team workshop it was agreed that the following methods of data collection would be appropriate:

- documentation and literature review of relevant, associated research, and of programmes and reporting material from the three countries;

- structured questionnaires;
- semi-structured interviews (sometimes audio-taped, for later transcription and analysis);
- standardised open-ended interviews.

Each country team developed a set of structured questionnaire documents appropriate for the identified target respondent groups, as summarised in Table 3.3. Community leaders were interviewed and oral responses recorded in written form and on audio tape for later transcription.

### *Sampling*

Each country team devised its own set of criteria for employing a system of stratified random sampling, which reflected its distinctive characteristics and geo-political conditions. Nigeria, for example, is distinctive for its large dimensions (size, population, economic advantage and systems), while Guyana, although geographically quite large, has a very small population and systemic dimensions by comparison. Uganda is somewhere between Nigeria and Guyana; it is roughly the size of Guyana but has a population 35 times greater. Though Uganda does suffer a north/south divide to some extent, Guyana faces a greater geographical division due to the inaccessibility of the hinterland. Nigeria has a particularly sensitive federal political environment, and so the sampling process developed there catered for sampled states in each of the 6 geo-political regions.

Table 3.3 is a summary of the sampling characteristics, with notes, from the three country research exercises. All questionnaires and interviews contained a mix of fixed-response (using option sets or Likert scales) and open response items. Samples are available in the country reports. Triangulation and corroboration of findings is possible by comparing responses from the various stakeholders in each country and comparing data between countries.

### *Collation and analysis*

Most of the collation and analysis was done in-country by the country teams. Field data were collected by administering the structured and standardised questionnaires and interviews referred to above. Where appropriate, quantitative data were collated and presented in tabulated form using parametric statistics (proportions and percentages). These tabulated formats are presented in the country reports. Qualitative data, from open-ended questions, were categorised and statements of findings, from both sets of data, were developed. These, too, are presented in summarised form, and highlighted, in the country reports.

The findings developed from the data interpretation were derived by the CCs and RAs from collaboration and discussion within each country. The key findings were then shared between the CCs and LRs at the second research team workshop. Country findings were analysed in relation to country context and a series of statements and implications developed.

This report compares the country findings in order to present some generic conclusions for DE policy makers and practitioners. For a full picture it should be read in conjunction with the three country studies which can be found at <http://www.iec.ac.uk/research.html>.

**Table 3.3 Sampling Characteristics of the Three Countries Studied**

Nigeria		Uganda		Guyana	
12 states chosen (2 from each of 6 geo-political regions – covering both educationally advantaged and disadvantaged areas)		Samples taken from 21 states in Northern, Eastern, Western and Central regions to include both rural and urban populations		Sampling was completed nationwide from all geographical regions though remote areas were difficult to access; communities from rural rather than urban areas selected	
Sample	Comments	Sample	Comments	Sample	Comments
Current DE Students (1200)	100 students from each of 12 states	Current DE students (52)		Current students (50)	10% of current DE students from 2 programmes
Graduate DE teachers (1200)	100 graduates from each of 12 States	Graduate DE teachers (50)		Graduate DE teachers (99)	All sampled from small numbers in 3 programmes. 55% responded
School heads (240)	20 from each of 12 states. Sample bias: those with DE students or graduates on staff	Head teachers (54)	Nationwide Sample bias: those with DE students of graduates working with them	Head teachers (58)	Stratified, nationwide Sample bias: those with DE students or graduates on staff
School teacher colleagues (240)	20 from each of 12 states. Sample bias: colleagues of students/ graduates/ respondents	School teacher and head teacher colleagues (55)		Other educators & personnel involved in training programmes (55)	Stratified sampling nationwide, although remote areas were difficult to access
School management officers (120)	Random sample	Supervisors, inspectors	Random sample	Members of communities in which students live and work (25) community leaders	Small, integrated communities selected in both riverine and hinterland regions
Resource persons (120)	Random sample			Staff of DE units, programme providers (9)	All units sampled, disproportionate stratified random sampling to cover 3 geographic regions of coast, riverine and hinterland
Community leaders (60)	Random sample	Council members and entrepreneurs (50)	Random sample	Entrepreneurs in communities where DE programme operate (22)	Samples from regions where students and facilitators are dependent on the providers of the various services

Sources: Thomas (2004), Senkomago (2004) and Ismaila et al (2004)

### 3.6 Constraints of the methodology

The study starts from the viewpoint that educating teachers using DE does indeed have an impact on the teacher and the community. Distance educators have been reporting anecdotal evidence of this for many years. It is fair therefore to say that this preconception of the situation influenced the tone of some of the questions developed for interviews and questionnaires. Indeed it was difficult to separate the research from the well rehearsed advantages of DE. Instead the study set out to investigate whether these assumed advantages are real or not.

The research was never meant to consider whether or not the DE mode of delivery of teacher education was truly efficient or of a value comparative to that of conventional teacher education. However, as many of the researchers are themselves teacher educators, the tendency was to keep coming back to the impact on teaching itself. It may be therefore that there are some unanswered questions, as the design was not tailored to quantifying the level of improvement in the teachers as a result of the training, or making comparisons between conventionally and DE trained teachers. Those are questions for other research studies.

Essentially this study was designed to collect the opinions of the many stakeholders woven into the teacher education system and the local community where teachers live and work. We recognise that such opinions may not always represent the absolute truth: they may depend on how free those questioned feel to voice an honest opinion; they may be influenced by those asking the questions, who are sometimes the very same people as were responsible for delivering the education; the command of the English language may not have been sufficient to understand or express the nuances. Teachers may not be best able to recognise the changes in themselves, but efforts to overcome this element of self assessment were made in the cross referencing of opinions from head teachers and community leaders. Though opinions from head teachers were not as favourable as those from teachers themselves, their responses do tend to corroborate the teachers' view of themselves. Teachers may be overestimating the improvement in their professional abilities, but at the very least this would indicate an increased level of confidence that in all likelihood can be attributed to the act of undertaking training that is appreciated by colleagues, friends and family.

This study used teacher education as a model of distance education that could be used to evaluate the impact of its systems rather than because it was teacher education. As such it did not consider the quality of the teacher education being delivered. The study collected data from one point in time and this precludes measuring change. However both current and past learners were questioned, which gives an idea of change. Data have not been disaggregated for gender.

The study was developed to be capacity building for all the researchers. This led to a number of compromising situations. Time became an issue. Throughout the design and data collection phases enthusiasm and commitment to the work were high. However once the collation and writing up phases were reached momentum slowed. The researchers were practitioners of teacher education and found the academic role harder to justify and prioritise in their busy lives. Such studies 'demand intensive work on the ground and a greater commitment to evaluation than many authorities have felt able to give' (Robinson 1997:133). Delays meant that time slots were missed, as each within the team was dependent on the others and thus the time issues

became ever more pressing. In hindsight a further workshop bringing the research team together for a third time might have paid dividends.

Varying levels of connectivity and local administrative support also played a part. Where the local researcher had no typing skills or direct access to technology there was understandable reluctance to rewrite. Poor connectivity may have been a contributing factor to communication remaining via the LRs throughout the study.

The team comprised people with varying experience of and expertise in conducting research and this has led to variation in the quality of data. However, it is right to say that the capacity of each member of the team was improved and that lessons learned will be taken forward to improve any future research undertaking. Culture as well as experience played a part in the way data were analysed and writing up approached. It was not always possible (and probably not always appropriate) to effectively impose a western view on how data should be managed and used to prove the statements made in the write-ups. This was particularly notable in the Ugandan study, where preconceived ideas tended to dominate. Perhaps this is an inevitable outcome of using in-house researchers selected by the partner institution, where the tendency may have been to select on the basis of patronage (Chabal and Daloz, 1999; Ward et al, 2001).

## Chapter 4: Discussion of Information and Data

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Here we look at the impact of teacher education at a distance, first on the local community and then on the school and educational system.

### 4.1 Impact on the local community

The local community embraces not only the teachers' immediate and extended family, but also the school environs in which they work and the local environment in which they live. The research sought to determine the impact of the DE trained teachers, in the family, and of their interaction with, and participation in, the wider local community.

#### 4.1.1 Family and lifestyle

DE is less disruptive to teachers' lives, an important consideration for mature teachers with families, community obligations and second income-generating activities, including food growing (often essential for low paid primary teachers)  
(Robinson, 1997:125)

The research findings point to a generic perception that 'family life is not affected'. That is, family life was not disrupted, and this was considered very important, given the critical roles and obligations embodied in the customary extended family. Not only was the DE training not disruptive, but overwhelmingly, in all three countries, it was found to impact positively on family life. On the whole it was conducive to family stability and tranquillity, enabling the teachers (female and male) to remain with their families for most of the training, and to attend to the obligations which come with family and community life in traditional societies.

As expected, this research confirmed that family stability (and tranquillity) and a lack of systemic disruption, long regarded as the pivotal convenience factor for in-service DE teacher education in the developing world context, were features of this mode of training in the three countries researched.

A particularly notable impact reported was the respect and pride shown by family and friends in the teachers. In Guyana, the teachers perceived their immediate family members as being very proud of what the training did for them. The following responses from teachers are typical:

'I have gained respect from my friends and family.'  
'My family are proud of my achievements.'

Interestingly the teachers who had qualified through DE seemed more aware of these impacts than those still studying. Sixty-eight per cent of past students indicated family pride as opposed to 40 per cent of those currently studying. As might be expected, the achievement of exam success, a possible increase in salary as a result and the time to reflect on the outcomes of the study, have perhaps informed the past students' opinions. It is also likely that the family of those currently studying will be feeling the effects of a relative having less time for family responsibilities.

It would also seem that the increased pride and respect, and the resulting increase in self esteem of these teachers, improve relationships in general with friends and family:

‘I find it easier to share my feelings with friends and family.’

‘There is improved and more open communication with my friends, family and colleagues.’

Teachers also indicated that family and friends were consulting them more often in decision making in the home. Fifty-nine per cent of past students and 54 per cent of current students noted this impact.

In Nigeria the overwhelming majority of the teachers perceived that the DE programme had impacted positively on their families, but there was little emphasis on pride. However there is some evidence that their families respect these teachers, as 299 of 815 current students and 111 of 728 past students indicated that their family ‘now looks up to me as a role model’. In Uganda teachers also noted that they were role models for the family and ‘the family is proud of my achievement’.

The comments reflect the general feeling of immense pride and mutual respect, from both teacher and family, about the way in which the training had been conducted. The support of the family and the respect and pride shown towards the studying teacher may be highly motivational.

In each country, teachers, particularly past DE students, reported an improvement in their lifestyle. A teacher in Guyana commented that ‘[my] Lifestyle has improved, in terms of educational achievement and financial reward.’ It was also noted that the training resulted in more job security. The Nigerian DE trained teachers also felt that the programme had affected their lifestyles in a positive way. They stated that they ‘plan their lives better, read widely to gain knowledge, spend more time at home than before, spend less time socialising with friends than before and discuss more confidently, professional and other issues’. In Uganda, in responses similar to Guyana, the overwhelming majority of DE trained teachers (past students) indicated that they felt their lifestyle and standard of living had greatly improved, saying for example ‘I am now in a better position to meet the needs of my family.’

On the issue of finance, the indication in Nigeria, where students have to pay for their training, was of a drop in the standard of living during training. Graduates seemed to note this concern less and this may be because they were looking back, possibly after promotion following successful completion of the course, and had received a salary increase.

It should be noted that the costs to the DE student vary from programme to programme. Those studying with NTI in Nigeria must fund their own study while others, such as those in Uganda on the NITEP and MITEP projects, had the majority of their costs covered. However even these students may be incurring ‘hidden costs’, for travel to tutorials, stationery, or foregone earnings from income generating activities (Robinson, 1997).

Another interesting spin-off is the reported impact on the spouse and children in the family. In Nigeria comments about the main ways that this was manifested included ‘My children are now encouraged to learn on their own’, ‘I am now involved in helping my children with their learning difficulties’ and ‘My spouse has been encouraged to enrol in some educational programme.’

This is corroborated by evidence from Uganda and is reflected in the following comments, ‘My children are now encouraged to learn on their own’ and ‘My spouse is encouraged to join a DE programme.’

The general conclusion from the three studies is that teachers studying through DE are likely to have stable family relationships that may be strengthened due to its positive effects. Head teachers also credited the methodology as very important in keeping the family together and ensuring that the teachers were ‘more sober’. Community leaders also identified these impact indicators and noted essentially that the DE trained teachers were now more responsible in terms of personal lifestyle and professional conduct.

Not every aspect of studying at home was considered positively, however. As might be expected, current students indicated that they were spending less time with their families, and that study strained relationships with spouses. This was complicated by the fact that students would at times of face-to-face tutoring be spending time with other colleagues (often of the opposite sex) in other locations, a situation that can be culturally threatening. Despite this negative aspect, the overall indication was that home-based study was good for the family.

#### **4.1.2 Local environment**

The data from the three country studies indicate positive impact on the local community. This is reflected in the involvement of the teachers in community activities and the pride, respect and confidence the community has in them. The community benefits from the teachers’ involvement in a wide variety of activities, such as community development associations, youth clubs, religious bodies and local politics. Local entrepreneurs and business people also recognise benefits to themselves.

##### *Teacher perspective*

In Guyana the research indicated that the DE trained teachers had become more involved in community activities than before training. The DE trained teachers felt a greater willingness to be involved in community activities and community leaders confirmed this finding. Seventy-five to 90 per cent of them felt that the DE trained teachers were either more willing to be involved, or were actually demonstrating a much higher level of involvement. The following were the activities most actively engaged in by the DE trained teachers:

- youth camps and sports activities;
- religious activities;
- village meetings;
- providing advice to village councils and captains;
- community based rehabilitation;
- local politics;
- community fund raising and self-help activities.



The community leaders noted changes and attributes in the DE trained teachers. The most frequent response when asked about the competence of the DE teacher was that the teacher was seen as a young leader (44 per cent). They were also regarded as qualified and competent (24 per cent). The community leaders considered the teachers to be more confident (12 per cent) and that the community had more confidence in/respect for them (32 per cent). Head teachers recognised similar attributes in these teachers. They observed that members of the community were now more willing to cooperate with and be supportive of them. The community had 'pride in the teachers' achievements, a high regard for them, often involving them in decision-making processes, greater respect for and confidence in the teachers' and saw 'them as role models for youths in the community, as responsible and valued members of the community' and 'viewed them as reliable and valuable'.

In Nigeria both current DE students and graduates felt that they have become much more actively involved in community-related matters. The current students, however, noted that this was more difficult while they were actually studying. Analysis of data showed that DE trained teachers were active in a range of both general and partisan (for example religious) community-based activities. Other respondents, such as community leaders and head teachers, were, without exception, quite unambiguous in indicating that the DE trained teachers were impressively engaged in community activities. One community leader stated, 'They (the DE trained teachers) are more involved in community activities than before...and this is a result of their training.' Another noted, 'They go to attend community meetings to enlighten the people.'

Head teachers, teacher colleagues and managers also indicated that the community's views of the DE trained teachers were positive. Their comments included that the community was 'proud of them, happy that the teachers remain in the school while undergoing training, grateful to the Institute for bringing higher education to the teacher's doorstep', 'saw that the training allowed the teacher to continue good work in the community while learning', 'felt proud of these teachers because they were helping to upgrade the children, and spouses felt proud of each other' and 'thought the training was good because teachers could upgrade themselves at home without leaving their family'.

In Uganda, in addition to the DE trained teachers perceiving that the training had allowed them to play a role in the community, community leaders overwhelmingly indicated that the teachers had become more involved in community activities. The feeling was that the DE trained teachers were more active in the community and most said that these teachers now commanded more respect in the community. The DE trained teachers were seen to be engaging in the following types of activities:

- as community resource persons, as councillors, for example;
- mobilising people for self-help projects;
- sensitising local people in their role as parents;
- guiding and advising the community on issues;
- attending community meetings;
- as civic educators;
- mobilising parents on school issues; for new buildings and sending more children to school;

- organising women, youth and sports clubs;
- generally becoming role models for the community.

Similar themes emerge in each country. They are increased confidence and respect for the teachers and recognition and appreciation of the roles they play in local affairs. Guyana, in its interview-based research, referred to the ‘domino effect’, where other individuals exposed to the DE programme were also ‘developed’ as a consequence. For example, when the DE teachers gained in confidence and became more active in the community, members of the ‘youth groups’ became indirect beneficiaries of the programme. This kind of consequence would be less likely if teacher trainees had moved out of the local context for extended periods of training.

#### *Local business perspective*

The regular locally based face-to-face sessions for large numbers of DE learners, and related support activities, provided part time and short term employment at the local level. In Guyana and Uganda it was found that benefits to local entrepreneurs accrued to them through an increase in work, as they provide improved facilities, goods and services to customers and thereby increased their income.

In Uganda, for instance research identified significant benefits including the following:

- shopkeepers – improved income;
- motorcycle and bicycle riders – improved income; improved communication skills and technology (able to acquire and use mobile phones);
- auxiliary staff at DE host institutions – improved income.

It is interesting that the increased business made possible the purchase of mobile telephones. Access to such technology is not only useful for business in rural areas where functioning land lines are still rare, but makes communication in general much easier. This is likely to affect the community more widely than the business people themselves. The Nigerian research also suggested, more anecdotally, that local entrepreneurial capacity (e.g. food vendor and stationery businesses) benefited as a result of supplying DE learners, especially during the locally based face-to-face exercises.

#### *Home community perspective*

Most significantly, in all contexts, members of the community (and especially leaders of various types) felt that these DE trained teachers were ‘better teachers’ than before, if training had occurred in an in-service context. Or they believed them to be as good as, or better than, those trained by conventional methods, in a pre-service context. Although these community leaders are unlikely to be trained teachers or teacher-educators, and therefore skilled evaluators of teaching performance, they are, at the local level, tuned in to community (including parental) views and pupil responses, and are able to make perceptive judgments as to the ‘worth’ and ‘value’ of a teacher and his/her performance. Community leaders rated the value of the DE trained teachers as very positive in terms of ‘better’ teaching, more confidence and greater commitment.

Significantly, the local communities take more pride in their own trained teachers. These teachers are seen as role models. Their participation in, and advice on, community activities, are being

increasingly encouraged. This in turn is a source of much pride for the DE trained teachers. The fact that the home community recognises the effects of this training methodology is important, and may reflect the fact that the community is constantly observing these teachers under training in its midst. They see for themselves teachers' developing performance and growing professional maturity, and their impact on the people around them. Because the training takes place on the spot, the communities in general have become much more accepting of this 'unconventional' mode of teacher training, and the opportunities it affords all adults at the local level. There is a genuine understanding of support for the adult learner, and the benefits accruing to the local community in having adults learn in a local context. The fact that these mature learners can apply their new knowledge and skills immediately, and provide the role models so important to the community, seems to be appreciated.

In Nigeria NTP's programme is the only tertiary programme within reach of some communities and a number have been active in seeking the establishment of study centres in their areas. For example they offer facilities by renovating buildings for offices, classrooms, laboratories and stores. State governments have assisted by giving land and buildings, and in Anambra State a local government council donated 40 bicycles to distance learning students to get them to their study centres. It is also worth noting that a follow-up to the research in Nigeria indicates that communities value DE trained teachers so highly that they wish to make it easier for programmes to be implemented, for example, by providing land and offering help in organisation and communication. In the past there has been little support at this level. Those involved have said this was because they had not been approached before (Ismaila, private communication, 2003). Not surprisingly, asking questions in the course of the research raised awareness and interest where it had not always been apparent previously.

In all three countries community leaders, family and friends participate in the study centre functions such as launch and graduation ceremonies. There are also benefits to a whole range of local businesses and entrepreneurs, as the supply of goods and services generates income and develops expertise in the provision of these support services.

#### 4.1.3 In summary

The research has identified the following dynamics, which all relate to the provision of trained teachers with more personal, professional and community-based power and standing, and which have unintentionally empowered the families and communities of the DE-trained teachers in the following kinds of ways:

- the family and community have been with the teacher during the DE training programme. There is an immense sense of pride among these partners in the process;
- a two-way dynamic has developed. The DE trainee is able to support the family and community during training, and they in turn can support the teacher trainee, and thus enhance the chances of success;
- a general feeling of acceptance, goodwill and pride has developed in the community both at being part of the support (and therefore of the training) process, and in being able to influence the personal and professional output of this training;
- in turn the DE trainees and trained teachers have gained a significant sense of personal pride and self-respect. This has promoted self-confidence and has made them more open and willing to participate in community life;

- the communities now look up to these DE trained teachers (who represent, in part, the products of the community's training) as responsible role models;
- the DE trained teachers are perceived as being more sober, more responsible, and generally more exemplary by, and in, the community. The connection between this outcome and the DE methodology is not clear, but the feeling of belonging; respect accorded the teachers by the community; the related community participation; leadership roles assumed by the DE trained teachers; are all likely to be interdependent links in this process;
- undertaking training in the community context and role model status have evolved during the course of the training programme and this is where real mutual empowerment has occurred.

The DE methodology has achieved very positive results, and this in turn is affecting community perceptions. People see this methodology (especially when part of an in-service model) as achieving results, and impacting positively in the community. Communities feel an ownership of the training process and an immense sense of pride in the outcome. They can see it raising the quality of human capital and of education in their local context.

## 4.2 Impact on the school/educational system

The research sought to clarify the concept of empowerment and whether DE methodology provides the teacher with tools to function effectively and efficiently within the school and educational context. It did not try to make comparisons between DE trained and conventionally trained teachers. To illustrate empowerment the study considered performance in the classroom, professional attitude, participation in activities outside the classroom, and whether the teacher's status had changed as a result of the training. It also considered who, apart from the teacher, might be affected by the development and delivery of a distance education programme, and whether the resources created by the programme were used more widely.

### 4.2.1 In the classroom

In all three countries self-perceptions of both current and formerly DE trained teachers were very positive. In Guyana this was especially so in the areas of management, confidence and understanding of learner needs; in Nigeria especially in planning, subject knowledge and also in understanding of learner needs; and in Uganda in planning and preparation, management and teaching methods.

In Uganda, DE training teachers were asked how they perceived improvements in their subject knowledge as a result of the training (See Table 1b in the Uganda report). They all indicated improvement, but did not rate it as highly as other indicators, such as planning and preparation activities. This probably reflects the emphasis of the programme being delivered on methodology rather than content.

There is evidence from Guyana (Tables 4.1.1 a, b and c, Guyana Report) and Nigeria (Table 4.1, Nigeria Report) that head teachers (i.e. those directly supervising the teachers and probably best able to observe their effectiveness) felt that the training had improved teacher effectiveness and

efficiency, although these ratings were not as high as the DE trained teachers' own. This could reflect the more critical nature of the head teachers' roles, and their need to see daily evidence of actual performance to ensure that the school functions effectively. It is nonetheless very encouraging that head teachers witness such improvement and are open-minded enough to say so, despite mostly having been trained conventionally themselves. In Uganda head teachers also recorded improved teacher performance (Table 1a, Uganda Report). The teachers' own growing confidence and self-esteem may also be reflected in the improvements they believe themselves to be making.

In all three countries colleagues, head teachers and community leaders noted very positive changes in professional attitudes, reflected in the trained teachers' willingness to share, initiate and participate. They were regarded as having grown, very positively, in their professional attitudes and strengths. These were demonstrated in their willingness to work with, share, and assist their colleagues in the school and community, in a constructive way, and thus enhance their own role, the role of teachers generally and of the school and education.

In Guyana (Tables 4.1.2 a, b and c, Guyana Report) DE trained teachers regarded themselves as more willing to discuss and share professional issues with colleagues, to relate to outside observers and to participate in extra-curricular activities. This self-perception comes from increased skills and competence levels, as well as increased confidence. One teacher expressed it in the following way: 'This type of training helped me to improve my self-concept and this has made me more willing to work and share ideas in groups.' Head teachers noted that, because of this, these DE trained teachers were given more professional responsibility. This reflects both the newly developing teaching competence and changes in professional confidence and attitude.

The Nigerian research specifically identified the following changes in teachers' professional attitudes which supported the acquisition of increased responsibility in schools. Teachers were found to be:

- more confident in class;
- more considerate of pupil's needs;
- more willing to discuss problems with colleagues;
- willing to share knowledge;
- more comfortable with outside observers in the classroom.

The Nigerian research tried to link these changing professional attitudes with particular aspects of the DE teacher training methodology employed. Head teachers considered three aspects to be particularly important in promoting these positive changes in professional attitudes and these are noted in Table 4.1.

**Table 4.1 Aspects of Training that Promote Positive Changes in Professional Attitude of Teachers**

Factors	Respondents (head teachers) n=177	
	Responses	Ranking
Immediate application and transfer of knowledge	153 (86%)	1
Independent training	87 (40%)	2
Community based training	44 (25%)	3

Source: Nigeria Country Report Table 4.8

It is interesting that the immediate application of knowledge ranks so highly. DE not only encourages this but also provides a means of getting the knowledge to the teachers quickly and undiluted. It puts:

information about curricula and teaching approaches directly into the hands of individual teachers rather than trickling it down through administrators or other teachers in an increasingly diluted cascade of meetings. It offers a shorter time-gap between teachers' learning about new teaching practice and the opportunity to try them out in their classrooms (Robinson, 1997: 125).

#### 4.2.2 Outside the classroom

As noted in the Guyana report, the research study considered that improved status could be indicated by promotion, enhanced salary, new or added responsibilities, improved self-perception, or perception of the DE teachers by others. In each country it was found that some of these were in evidence after training using DE methodology. After their training, DE trained teachers in all three countries were more involved in school activities outside the classroom. This was stated by the teachers themselves and corroborated by their colleagues, head teachers (and school managers) and by members of the local community.

In Guyana, the research indicated that the greatest participation was in the area of sports and clubs (i.e. child-centred), followed by staff development (professional-centred), and then Parent-Teacher Association activities (community-centred) (Table 4.1.3, Guyana Report). Participation was mainly in planning, facilitation and co-ordination, i.e. in real leadership roles, often with the DE trained teacher taking the initiative. As a result, the newly DE trained teachers were more often consulted by the local community and education authorities, and by colleagues, and were taking more part in local decision-making and planning processes. Data indicate this process occurring in all three countries.

DE trained teachers felt that they were treated with more respect by colleagues, supervisors and the community. Their opinions were now sought and considered more often, and they were expected to be involved in higher levels of professional and community activities. In Uganda for example, this involvement translated into invitations for the DE trained teachers to participate as examiners, subject panel members and members of teachers' professional groups.

### 4.2.3 Beyond the teacher

The DE models delivered involve developing and using widely dispersed infrastructure and personnel, much of which is centred in the local communities where the DE learners live and teach. They use local institutions, support personnel and services to facilitate training and learning. It is therefore necessary to look beyond the direct beneficiaries of a teacher training programme, the teachers, and their pupils, for their wider impact.

In Nigeria the resource persons for the DE delivery were the course supervisors (at the local level), and writers, editors, examiners and others, at the host institution. Ninety-five per cent of people in these categories indicated that their involvement in the programme had positively contributed to their professional performance, in the following areas:

- teaching by sharing experiences with students who have ‘lived’ (matured);
- coping with adult learners in non-conventional school settings;
- having to conduct research in order to meet learners’ needs;
- acquiring knowledge of differences between distance learning and face-to-face techniques;
- preparing self-instructional course materials;
- knowing how to guide learners through difficult tasks.

They also agreed, overwhelmingly, that they had acquired new skills, including, for example:

- ability to generate items for tests and examinations;
- use of audio materials for teaching;
- counselling learners;
- understanding student learning difficulties;
- managing large classes;
- in financial management, as they collect and account for course fees collected from students.

The resource persons in Nigeria indicated that the DE teacher trainees’ school colleagues also developed as a result of the programme, through: exposure to the DE learning materials and experiences; being motivated by the role model of the DE learner; and being engaged as course supervisors and tutors.

In Guyana the ‘non-direct’ beneficiaries who developed as a result of their involvement in, or exposure to, the DE methodology, were similar to those identified in Nigeria. For example staff of the educational institutions and members of the wider educational system (those referred to as the ‘resource persons’ in the Nigerian study). The developmental benefits (presented fully in the Guyana Country Report, Table 4.3.1) include the following:

- use of the DE materials other than for immediate intended purpose – i.e. in other programmes;
- better able to supervise teachers within the educational system;
- offer better level supervision for student teachers other than those on the DE programmes;
- learning how to meet the needs of adult learners more effectively;
- appreciating and interacting with individuals from different social, cultural, ethnic and economic backgrounds.

The trained personnel (often from conventional teacher education) who, mostly in a part-time capacity, managed, delivered and supported DE programmes, acquired skills which were transferred to their fulltime working environment. The recipients of these skills indicated that they applied them in the local community, and with organisations and their family members. This occurred especially in the areas of training and feedback and supervision skills. It was also noted in Guyana that there were benefits to trainee teachers in the conventional programmes. For example when undertaking their local teaching practicum, they were better supervised and supported because of the improved professionalism of the local organisations and their staff. Capacities developed in the delivery of the DE programmes were used with conventional students as well. As teaching practice in field based teacher education programmes is considered a weakness, it is interesting to note that the teacher educators benefiting from training in the implementation and assessment of teaching practice benefit the conventional system. Sadly not all DE programmes commit resources to training this cadre of professionals.

Another group, the staff members (the distance education units) of the DE provider institutions, benefited by: gaining a clearer understanding of the dynamics of isolated communities and strategies that could be used to help them; recognising the need to provide effective learner support; and acquiring skills in editing and designing print-based DE materials, typing and computer use, budget preparation, materials production and report writing. All teachers and educationists, it was noted, benefited from access to the DE materials being used. These materials were resources and assets, not only for the DE trainees and trainers, but for all teachers and their schools.

In Uganda, local education resource personnel (tutors, module writers and editors) were identified as deriving significant development benefits from involvement in, and exposure to, the DE methodology. Benefits included skills in handling adult learners, knowledge about DE mode of delivery, improved supervision, monitoring and evaluation skills, module writing and editing skills. Local host institutions (for example, Primary Teachers' Colleges, Education Resource Centres) also developed management and support skills as a result of their role in delivering aspects of the programme. Mention was also made of the capacity developed by the main resource persons (especially at the local level) who were used, often after receiving training and being upskilled, to deliver and support the DE programmes.

#### **4.2.4 The materials**

The study asked whether the resources developed for a DE course for teachers were used outside the programme or project. In all three countries the emphasis in feedback from respondents was mainly on the print-based and supplementary resource materials, and to a lesser extent on the other resources and equipment supplied to facilitate programme delivery.

In Guyana, the DE study and supplementary materials were widely used by conventional teacher trainers and educators; and by other DE agencies in their training activities. The many support people who had been providing part-time support for the DE teacher education programmes had acquired the materials first of all, their use becoming more widespread thereafter. The use of these materials appeared to be having the greatest impact in the primary, secondary and tertiary areas, and in educational research. Because of the continuing problems



associated with access to conventional teacher education, the DE materials and capacity created provide a potential way of addressing Guyana's on-going training needs.

In Nigeria the materials (including audio and video) have been widely used by conventional institutions and programmes (for example, host Primary Teachers' Colleges). They are rated as being very useful; and an overwhelming majority of these users indicated that they would recommend them to others, especially students in the conventional programmes. A further study at NTI indicated that the materials are so valued that the organisation will be able to print extra copies and generate income as a result. It was also noted that host conventional institutions benefited by receiving furniture, recording and reprographic equipment, through their association with the DE programmes.

Uganda's findings confirm those of the other two countries. The overwhelming majority of part-time DE support tutors used the materials for their conventional programmes. This further translated, over time, into widespread use of the materials by the host institutions.

#### **4.2.5 In summary**

Real empowerment has occurred in the school and education system environments. In many respects, this is to be expected. Any teacher-training programme which did not achieve these kinds of results would be distinctly deficient. There is expected to be a direct relationship between professional training and subsequent professional performance and confidence, by way of enhanced skills, competencies and attitudes. In addition a positive correlation between competence and personal confidence is expected.

Our findings also identified a wide range of indirect beneficiaries from the DE-delivered teacher education programmes in the three countries. The perception was that 'development' occurred as a consequence of their exposure to, and involvement in, the programmes.

The most notable beneficiaries were the conventional teacher educators and other education personnel who supported the development and delivery of the DE programmes. These included administrators, tutors, materials developers and examiners in the traditional teacher education institutions (for example, Primary Teachers' Colleges) who have become genuine dual-mode teacher-educators. At the local level head teachers, teachers, inspectors and local administrators have also been trained to provide a range of support services.

All of this has been supported by the provision of extensive material resources for the local DE learners. Schools and conventional teacher education programmes have used these materials and this, in turn, has strengthened the local professional materials resource base. This exposure has an effect on the quality of the delivery of conventional education. Conventional teacher educators, teachers and educational administrators are feeling more competent and better able to deliver. There are implications, in a development sense, therefore, for learning in the classroom at the local level.

## Chapter 5: Possibilities and Implications

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### 5.1 Possibilities

Teachers, qualified and unqualified alike, have seen distance education as an opportunity, not otherwise available, for personal and professional development. Governments, donors and international agencies have seen it as a means of providing large-scale and rapid training at affordable cost. Educational institutions have seen it as a way of extending their outreach and service to rural or remote teachers and schools. Teacher educators and planners have seen it as a way of supporting new models of school based training. (Robinson 1997:125)

#### 5.1.1 Personal and professional development

##### *Teachers*

Clearly the research has corroborated the first statement above. The data record both personal and professional development. As might be expected from a course of training, there has been improvement in the professional standing of the teachers trained by DE methodologies. Evidence of the effectiveness of DE in the training of teachers is still scant; for discussion on this see Yates and Bradley (2000), Robinson et al (2001) and Robinson and Latchem (2003). There are certainly data indicating that using DE to train teachers means that large numbers of teachers are being reached, but reaching them does not mean that what they learn is of good enough quality or that they apply what they learn successfully to their teaching. Data from our study indicate professional improvement to a level deemed satisfactory by head teachers and teachers themselves. We did not try to quantify this, but would venture to suggest that where improvement is valued and appreciated it must be of some worth (see for example Table 4.1). That is, the DE methodology has produced teachers of acceptable effectiveness and efficiency in the teaching context. Earlier evaluation of the NITEP programme (Wrightson, 1998) notes that 64 per cent of the 2755 teachers who sat the final Grade III examinations were successful. The national pass rate was 59 per cent among conventionally trained student teachers. Comparison with the pass rates of the conventional students at the Primary Teacher Colleges in the NITEP region is interesting. These college students had a pass rate of 70 per cent. This is significantly above the national rate and the difference was found to be due to the upskilling of the tutors through the distance education programme.

Our evidence of personal growth is overwhelming and focuses largely on the development of confidence and increased self-esteem. This might be expected of any training and it is born out by Mahlck and Temu, who as long ago as 1989 tentatively concluded that two training programmes, one conventional and the other a distance programme, ‘succeeded in developing the teachers’ confidence in their own competence’. Their study seems to suggest that the distance programme may have been relatively less successful in building self confidence in female teachers. The data in our study do not disaggregate sufficiently to give us full insight into this issue; however the Uganda study suggests similar responses from both men and women, as illustrated in Table 5.1.

Many others have noted the increased confidence and empowerment felt by adults undertaking training. A recent report on DEEP (Digital Education Enhanced Project), a project in Egypt and South Africa that uses hand held computers to assist teachers in planning, indicates that ‘Teachers say that their confidence, enthusiasm and standing in the community has increased

since being involved in DEEP. One of the project's schools was featured on a radio programme, while another has experienced an increase in enrolments' (Leach, 2003).

This improvement in confidence is recognised inside the school and outside it, thereby empowering the teachers to participate more fully in community life (see also Table 5.1)

**Table 5.1 Summary of Responses from Teachers in Uganda, on the impact of the DE Training on Family and Lifestyle**

Male teachers	Female teachers
I am now in a better position to meet the needs of my family due to a higher salary.	I can now supplement the family income.
My wife gives me more respect due to a higher salary and qualification.	My husband respects my views because of the higher qualification.
I am a role model.	I am a role model.
My children are now encouraged to learn on their own.	I am able to buy many things for my children.
My wife is encouraged to join a DE programme.	Family members now seek my advice.
My family is proud of me.	The family is proud of my achievement.

#### *Teacher educators*

Lewin and Stuart (2003) consider teacher educators to be a neglected resource:

Few systems provide training or support for senior management who are likely to have been promoted from teaching positions (ibid: xxiv).

When considering the situation for college lecturers they note:

Their main needs are: better personnel management, deployment and induction, and a clearer career structure linked to staff development and promotion opportunities, which would attract, motivate and retain suitable tutors. These things are achievable without excessive costs, but require different approaches to staff development which could improve morale, create incentives and rewards for improved performance, and attract new talent into the profession (ibid: xxviii).

In the DE teacher education programmes studied, particularly in Uganda and in Guyana, where they were donor funded (NITEP by the World Bank and the Ugandan Government, GUIDE by DFID and DEPE by the Nuffield Commonwealth Fund), significant training of the teacher educator cadre had taken or was taking place. As might be expected, the researchers reported improvements in self-esteem and professional development among this cadre.

Perraton (2000b:8) considers that the first condition for success in DE for teachers 'is to set in place effective arrangements to support students and, in particular, to supervise their classroom practice'. In the NITEP (Uganda) experience, specifically directed planning, training and analysis led to the development of an approach to rating teacher performance which incorporates the assessment of competence level of a set of defined skills, as well as reflective commentary activities and the generation of appropriate pedagogic responses for improved delivery (Ataro Atim and Wrightson, 1996). The upskilling of the teacher educators in the NITEP programme, together with their ongoing involvement with the Teacher Development Management System programme, is considered to be the primary reason that student teacher pass rates for initial teacher training were 70 per cent in the NITEP centres compared to the national average of 59 per cent in 1997 (Wrightson, 1998).

Training cadres of teacher education professionals in support of DE models also has the potential to bring these tutors and college personnel into more professional contact with the schools. It is an opportunity to involve them in improving learning and teaching at school level – benefiting the schools as a whole and offering then the chance for research and reflective practice which remains relevant and up to date.

### 5.1.2 Cost

This study did not set out to research the cost of DE to the individual teacher, but brief consideration must be given to its cost and the impact it has at the community level. It is fair to say that at this level many of the costs are hidden:

Teachers carry costs resulting from studying in their spare time; for example opportunity costs (travel to tutorial, stationery and so on) and forgone earnings from other income-generating activities. Nielsen et al (1991) provided evidence from Sri Lanka that although the costs of a primary teacher education programme at a distance were considerably lower than those for conventional equivalents, the 'private costs' to individual teachers were higher. These will vary between projects and countries (for example, students on the MITEP course in Uganda reported little personal costs whereas those of conventional students were much higher). Other costs difficult to determine are those of assistance or facilities provided by local education administrators and personnel. Extra tasks generated by the DE programme may be added to a local administrator's work without acknowledgement or cost calculations. The same may also be true for the staff of primary teachers' colleges who undertake extra administrative tasks or teaching for token rather than real costs. Other costs, such as those for local facilities, are seldom included, being seen as part of the general provision by a ministry, yet without them the DE programme could not function. Sharing existing education structures, facilities and networks of communication makes maximum use of existing scarce resources but makes cost analysis difficult. (Robinson, 1997:133)

Even without cost data, we do know that teachers studying DE programmes must attend face-to-face sessions and we can therefore assume that to some degree they are incurring the types of cost Robinson outlines above. We do not know how high these costs might be. For example in

Uganda, the teachers enrolled on the DEPE must pay for their own course fees and do so, as they see this as a stepping-stone to better things. They therefore may consider any further costs such as travel to face-to-face sessions as normal. Though the research did not actively seek cost information, there seem to have been no comments from teachers, head teachers or members of the community to indicate that they felt the transactions to be one sided. Nor were any comments collected that indicated any resentment from teachers playing the mentoring roles on a voluntary basis. This may be the result of a professional camaraderie, particularly in the rural setting, brought about by the need to work together under resource poor conditions, and recognition of the benefits in training and materials. More research would be required to clarify these issues.

It may be fair to assume that the rewards identified in the research outweigh the costs to the individuals and the institutions involved. We have identified as yet unexplored benefits to the communities touched by DE. These might be considered the added value of using DE to train teachers. This added value has yet to be quantified in terms of cost, but it might be considerable. For example, as noted by (Levin and Lockheed 1993: 3):

Schools in developing countries often lack the most basic resources needed for education such as qualified teachers, facilities and textbooks...Even with low salaries, almost all of the school budgets are spent on personnel, so there is little left for school textbooks and other instructional materials.

DE requires considerable funding for the development of teaching materials and the research has confirmed that these materials are also used informally, by conventionally trained teachers to support their work and improve their knowledge. DE models frequently appear to generate quality materials (after much pedagogical preparation), but it is also possible that the materials are valued because others, of whatever quality, are simply not available. They also represent detailed and thorough collections of subject knowledge; often the reference material is not freely available in any other form. Perhaps when such materials are developed it could be done with the intention of making them much more widely available to teachers. Where they contain a high level of subject content they may also be useful to secondary school students. Indeed where DE materials are developed specifically for secondary level open schooling, they may also be very valuable in conventional schooling. If conventional and distance educators work together it may be possible to create materials to serve as textbooks that encourage interaction between reader and student and help to facilitate a reading culture where little exists at the moment.

As a result of introducing a DE model, head teachers, teachers, inspectors and local administrators have been trained to provide a range of support services. Conventional teacher educators, teachers and educational administrators feel more competent and better able to deliver. This means that activities such as inspection and supervision of teaching practice are likely to be conducted in a more professional way than prior to the implementation of a DE model. Thus there are implications, in a development sense, for the quality and results of learning in the conventional classroom at the local level.

On the other hand it could be considered that the conventional system adds value to the DE system by making available classrooms, laboratories and accommodation for the face to face and

practical sessions. This means that otherwise empty facilities are used and the institutions may benefit from small amounts of income accruing.

There appear to be possibilities for more cooperation between conventional and DE modes of delivering teacher education, that could be mutually beneficial and, if planned and implemented thoughtfully, might provide better value for money and even be cost saving. In a devolved system set up to support students across a large geographical area, there is also a need to develop financial management skills at the various levels. This has been shown elsewhere to increase competence in handling locally owned projects (British Council, 2002).

It is worth adding one word of caution about the cost of implementing distance education in rural settings:

[T]he costs of delivery /support in deep rural areas is much higher than that of delivery or support to urban schools ... travel to these areas is costly; there is not usually any accommodation close by for support staff; distribution and installation of equipment is expensive; and if anything goes wrong ... teachers may not turn up for training sessions, which then have to rescheduled ... workshops or meetings have to be cut short ... These factors also push up the costs.  
(Media in Education, cited in Mattson, 2006).

To be successful in these settings budgeting must be realistic. The tendency to cut seemingly small amounts of funding at the teacher level, though likely to make large savings when multiplied up can be disastrous for the learner support, thereby jeopardising the whole programme.

### 5.1.3 Outreach

Outreach in its simplest sense can be taken to mean taking services to groups or individuals. It has been used for a long time in the delivery of youth and community work, pastoral and missionary care, health and community education. Among other things outreach may be seen as a learning centre or access point away from an institution's main campus or buildings, or it might be the delivery of community-based provision, or networking and community liaison. Outreach has also been described as a particular approach or style of working. Brent and Brent (1992:4) define it with regard to youth and community service:

A style of work (incorporating several different methods) which enables us to make contact and work with young people where they are: in the community....a way of working with and on behalf of young people in the street, in pubs, cafes, schools and community groups.

This approach often includes an element of empowerment. An essential part of the process is the encouragement of individuals and groups to take responsibility for their own learning and for activities that may lead to change in their local community.

To make distance education effective requires a variety of structures and facilities for activities including:

- governance, planning, management and funding;
- materials development and production;
- materials reproduction and distribution;
- student recruitment and advice;
- student support, professional and pastoral;
- feedback systems for formative evaluation;
- record systems;
- quality assurance.

Further detail is available in Perraton, Creed and Robinson (2002).

It is generally recognised that the establishment of good student support is vital to successful delivery of quality DE. In order to build student support networks in teacher education it is necessary to develop a sophisticated outreach system. A good example is the outreach/student support system developed by the NITEP project in Northern Uganda (see box opposite). This contained five layers of formal support, together with an informal 'culture of care' that was found to be crucial in retaining teachers on the programme. A more detailed account can be found in Wrightson (1998).

Thus we have an example of outreach that is significantly devolved across a number of levels from regional to local (school based) and includes a large group of specially trained educators. This reach to the learners at school level is just one example of the networks set up to support distance learning programmes, but it may be one of the most important, as it reaches to where education and the local community meet (where it may be possible to motivate both youngsters and parents), and because DE for the delivery of teacher education is being used more and more widely.

#### 5.1.4 New models

The research has indicated that the DE methodology has potential to impact in ways that have so far been largely unplanned and disregarded. Awareness of this potential will enable planners to consider how best to implement DE programmes so that community development is incorporated and possible added value exploited, to the benefit of all concerned.

Training teachers through DE has added benefits, which include keeping teachers at home and at work. This enriches both home and school environments and is a further positive reason for training them in this way. Removing them from home and school disrupts and destabilises, with the loss of income, a parent in the home and a teacher in the classroom. So the challenge for DE teacher educators is to make this training as valuable as possible, not only to the teacher but to the school, the family and the local environment. There are also opportunities to take community development further.

It is clear that using DE for education directly related to community development is one way forward. This might be as part of a social strategy aiming to strengthen social infrastructure. Catering for vulnerable and disadvantaged individuals in Glasgow, using DE to deliver

### NITEP case study

The Northern Integrated Teacher Education Project was established in response to the need in northern Uganda for upgrading thousands of untrained teachers. It was a one-off programme funded by the Ugandan government through a World Bank loan. The NITEP programme was a distinctive distance delivery model that incorporated an integrated approach relying heavily on collaboration with existing teacher trainers and support personnel. It did this in the following ways:

- primary teachers' colleges (PTCs) and their facilities were used for administrative and residential purposes;
- cadres of teacher educators (PTC tutors) and experienced teachers in schools were briefed and trained to provide support to trainee teachers;
- schools were the environments in which NITEP trainees applied their learning on a daily basis working with their pupils.

There were five components to the formal learner support system beyond the regional centre offices:

- at district level in the coordinating teachers' colleges a student support officer was employed;
- twice a month tutor counsellors from the nearest primary teachers' college would run weekend tutorials;
- twice a year residential tutors supported two weeks of intensive face to face contact;
- subject specialist tutor markers marked student assignments and provided personalised feedback;
- a teacher on the same staff as the trainee teacher acted as personal tutor, providing professional development advice.

At all levels training in the needs of DE learners was offered and delivered, creating a cadre of teacher educators with specialised knowledge and experience of the distance learner.

Most of the trainee teachers lacked teacher education, and many had fewer than four 'O' level passes. They had been teaching in chronically under-resourced and degraded schools. The majority were living in villages, were married, had a myriad of responsibilities for extended families and relied on secondary income generating activities to supplement their teaching salaries.

It was apparent that these students required a support system designed to meet their pastoral as well as academic needs. NITEP's student support system contained components of both a formal and informal nature and promoted a culture of care.

This meant making special efforts to keep in contact with the students, which in turn required all management staff and 700 field tutors to be extremely mobile; being aware of any learning or personal difficulties that emerged, and responding quickly with an appropriate strategy. This unique and caring culture, it can be argued, was the key to the impressive retention of students over the three-year programme delivery period, and the success of the learning process (Wrightson 1998:26).

In the end, of 3128 teachers who enrolled on NITEP, 75 per cent presented for the examinations in 1997 and 1998. Sixty-six per cent of the original group passed. A year on primary school head teachers from the region were describing how the NITEP graduates were helping to raise the level of professionalism among teachers and the performance of their pupils. Primary leaving examination results had improved markedly between 1997 and 1998, in both Gulu and Kitgum districts.



community education, Farnes (1993 p 202) notes that ‘Participation leads to improvements in morale, strengthened social networks and the uptake of opportunities for further education, employment and community activities.’

It is also, for example, becoming more common for teacher education materials in Africa (for example in Kenya and Sudan) to contain information and guidance on HIV/AIDS and other health issues. It would be possible to produce well designed materials for teachers that take this matter of community development further, perhaps adopting a strategy that requires assignments or activities that actively address community involvement.

There are other examples of how DE can affect the community more directly through its content. In 1993, Mexico introduced a secondary curriculum that encouraged young people to engage with their communities. The Telesecundaria programme (de Moura Castro et al, 1999) sets aside days in the year to promote health, arts and culture or productivity projects of local interest. The students plan group projects intended to benefit the community, present them to the community and involve their parents in running them. In Kenya, the Women in Fishing Industry Project (WIFIP), which IEC is implementing in partnership with the WIFIP Trust, is using radio to promote healthy behaviour and improve business skills (Binns 2004, McCulloch 2005). This use of ODL is particularly enabling, as it provides a legitimate reason for group discussion around the radio programme issues.

It is therefore possible to imagine using DE to provide knowledge and develop skills that would be of use in community development, and more of this nature could be done. But we also have an opportunity to consider other ways in which DE might contribute to the fulfilment of the MDGs by including another focus on development at the local level.

Having recognised and defined outreach in DE, we might consider how else it could be used more broadly to assist community development. Community workers often find it difficult to gain entry to the community. Starting from scratch it can take months to gain the trust of the local population and it is not always possible to make contact with the right people. Outreach workers require a number of practical and interpersonal skills, for example:

- ability to conduct local research and analyse data;
- identifying key local networks and individuals;
- establishing relationships based on trust;
- arranging meetings with groups and agencies;
- engaging in dialogue about local interests and priorities;
- working outside traditional funding models;
- working autonomously.

Distance educators have many of these skills, and together with their networks can legitimise and speed up this entry. Let us consider another case study. The Building Literacy with SOLO Press project (BLSP) in Sudan offers possibilities not yet explored further. SOLO (the Sudan Open Learning Organisation) was established in 1984 and has been providing a range of distance learning opportunities to refugees and Sudanese people since that time. Its programmes include literacy and teacher assistance.

This is one working example of the use of DE structures and systems to support a community development project. Other ways to use the DE outreach might include:

- the use of premises for non formal discussion groups on health or business issues, i.e. for learning provision tailored to the local needs;
- development of schools as community centres;
- basic skills and family learning in community settings;
- piloting the provision of information technology;
- developing the local learning centres into libraries, perhaps with access to a telephone and other technology;
- helping the professionals (teachers and teacher educators) in the system to be aware of and active in community development.

What this means is that there are opportunities to use the DE models for other than direct delivery of DE, if distance educators and community development specialists work together. The question is what is needed to make this kind of engagement happen.

Responding to new learning needs may require a leap of faith and considerable flexibility, because those involved will need to change the ways in which they are used to working. It will require understanding from top to bottom, i.e. from community leaders, school staff, the inspectorate, teacher educators, educational institutions and ministry officials, and a willingness to engage with experts of other disciplines and for those experts to be willing to share their knowledge. This is no easy task; conventional educators have long marginalised DE as second rate, and the community development world is no less likely to rebuff DE if it professes to have the answers. Dialogue, discussion and further inter-disciplinary research may be good starting points.

#### **5.1.5 Capacity building and training in research**

The need for more research into the role of ODL and its effectiveness in the development of teachers is clear. Such research and evaluation must be sound and researchers and teacher educators in the developing world should undertake more. But, as Robinson points out, ‘the capacity of those undertaking evaluations, especially practitioners whose primary role is not evaluation, needs strengthening’ (Robinson, 2003: 210).

Embedded within this research, through the methodology employed, and the research teams engaged, there has been significant capacity-building for all the researchers. A whole cadre of players have been trained in research design and field-based action research through a cascade training process. Lead Researchers met with Country Coordinators in two extended training contexts where, initially, the nature of the research, research questions and implementation strategies were agreed; and subsequently where data analysis approaches were considered, reflective exercises undertaken and reporting formats agreed. On return to their country contexts, the Country Coordinators assembled teams of researchers, research assistants and field workers and trained these cadres in preparation for research implementation. Training continued at various points as data were collected, collated and presented.

Through training, each country was able to provide exposure to the design and use of action research to a broader range of researchers. In Guyana for example, two two-day workshops were conducted with Research Assistants and telephone guidance was delivered to the Field

### BLSP case study

Now in its fifth year, BLSP was designed to meet the need for reading materials suitable for adult learners in refugee, displaced and local Sudanese communities. It aims 'to have several thousand more people who live in Sudan (refugees and displaced people, women and men) reading on a daily basis than were doing so in 1999'. The programme illustrates some of the potential of a distance education infrastructure.

It is being accomplished through the following activities:

- upgrade of SOLO's existing print shop equipment;
- expansion of SOLO's staff by the addition of a commissioning manager, a post-literacy coordinator and 28 community liaison workers;
- training of staff in the skills and knowledge needed to run a successful educational publishing house that contributes to building literacy skills;
- production of titles (magazines, books and booklets) which provide a focus for on-the-job training for the staff of SOLO and are a tangible contribution to post-literacy work in Sudan.

In essence the project divides into two discrete parts, which are mutually dependent, and is only possible because it builds on SOLO's distance education infrastructure.

The first part is the development of the press. SOLO already had an experienced and relatively well trained staff able to design and print educational materials in a variety of languages. By adding equipment with a greater capacity and recruiting someone with business experience, it has been possible to build on SOLO's reputation and network, to the point where the press has the capacity to fulfil not only its own printing needs but those of a number of large clients. The income from SOLO Press is being put back into SOLO's educational programming, helping to secure SOLO's financial future and making it possible to plan longer term for some of the most disadvantaged and underserved populations in Sudan.

The second part, the development and production of a range of books, manuals, newspapers, magazines and other materials, in Arabic, Tigrinya and other local languages, is being undertaken in the following way. Twenty-eight reading and writing circles, with approximately 1800 participants in total, are distributed in camps for the internally displaced in Khartoum and Gezira States and for refugees in Gedaref and Kassala States. Each circle is facilitated by a community liaison worker and managed overall by the post-literacy coordinator. The project is enabling the newly literate refugees and displaced Sudanese who make up these circles to write and publish their own stories. The volume and range of writing produced in the groups has been impressive. A comprehensive commissioning process enables project staff and beneficiaries to choose which stories/articles go on for publication.

One of the most critical stages in the operation was the establishment of the circles within the communities – not difficult for SOLO (though we know other NGOs, international and local, have found it almost impossible to get into the community), as it could follow the outreach of its DE programmes (which include teacher education, primary healthcare and literacy) right to the heart of the communities. Being part of the local network also made it relatively straightforward to recruit community liaison workers from the local community.

The geographical spread of the programme is enormous, for what is essentially a face-to-face open learning rather than distance education undertaking. It takes 8 hours to drive from Khartoum to Kassala on metalled roads; the camps themselves are usually another hour or two's drive into the desert. SOLO has been able to reach out over this distance only because it has a regional office and local study centres from which to do it. To be able to move in these areas of Sudan official permission and documentation must be sought – as it has become more-or-less routine over the years such permission, though time consuming and at times costly, has been relatively easy to get. Journeys are planned to be multipurpose so that various SOLO programmes can piggyback and keep costs down.

SOLO has been able to call on its writers, editors, printers, transport and delivery system, tutor and monitoring visits, face-to-face centres, sports, sewing and computer equipment, library resources and audio equipment, and plans to use the radio expertise it gained doing health campaigns to broadcast some of the stories. In effect it is mobilising all the distance education resources it has at its disposal for the benefit of a participatory programme based in the local community.

Finally SOLO can command the support and co-operation of its former DE students and support personnel in these communities, who understand the benefits of ODL opportunities and the needs of the open and distance learners. These people have become voluntary mentors and supporters of the new ODL students.

An example is Ali, a DE-trained teacher from an earlier SOLO programme, now working as a teacher in the Wad el Sherife camp near Kassala, who is a 'friend' supporting the post-literacy BLSP reading and writing circles, providing a venue for their meetings and a paraffin lantern for their evening activities.

*Source:* Binns 2002

Workers. Informal contact and assistance was ongoing. Thereby a network of researchers was developed that reached far out from the centre. In other words capacity building through participatory training took place at many levels, and at many times, of the research project, and much effort was addressed to allowing the players, with their new research capacity, to reflect on practice. This capacity has been reflected in organisational arrangements that acknowledge and utilise the newly developed expertise, and in identifying people who can now be points of contact, and a source of focus and support for future action research in DE and related educational areas in Guyana, Nigeria and Uganda.

In the three countries studied skills have been developed in research design, the use of a participatory and action methodology, and reporting on, and writing up, of the research work. A number of the researchers had experience in writing up research with descriptive dimensions (often presented using parametric statistics). In addition this project promoted a presentation which was analytical and asked participants, often for the first time, to relate research findings to policy implications (at the local, institutional and national levels). Given the nature of development investment in these countries, and increasing use of the Sector Wide Approach in education, it is significant to have more field-based educationists practising research. Even on a small scale a direct link between these practitioners and policy generation must be valuable.

The Nigerian team particularly noted that their research findings were useful to educational policy makers in their decision-making, by informing them that:

- Teachers trained by distance education are empowered to function effectively within the community as change agents - mobilising and sensitising the community for positive change.
- Teachers trained by distance education can be effective in spreading development to the rural areas, as resources and expertise developed for the delivery of distance education spread to and are retained within the community.
- Distance education can be effective in poverty eradication: as level of literacy rises, beneficiaries are economically and socially empowered through promotion, thereby raising their standard of living; and because distance education generates employment within the community in which it operates, especially where the study centres are located. Food sellers and stationers make brisk business at the centres and distance education provides employment for auxiliary staff drawn from within the community (Nigeria Country Report, 2004: 41).

As part of the reflective processes, all research practitioners engaged in the project were encouraged to analyse shortcomings and weaknesses evident in the research design and its implementation. For example, Guyanese colleagues noted the lack of disaggregation of data: 'this research has been limited by the fact that no provision was made for specific response by gender' (Guyana Country Report, 2004: 33.)

A key capacity enhancement for all players (respondents, researchers and stakeholders) in the three countries involved was in widening horizons and perspectives. The project legitimised taking time to think about the more holistic impact of using DE methodology. Nigeria (p.13) noted that 'no local research has been carried out on the impact of teachers trained through distance education on their local community'.

This project has begun the development of a new capacity in DE research. It has prompted a whole series of additional questions which now require answering (these are raised elsewhere in this report). It has initiated the building of capacity in conceptualising research in DE beyond the fairly conventional indicative areas of use of DE methodology for the training of teachers, and in impacting, directly, on the quality of the classroom experience for learners and their teachers.

Each country report indicates a willingness on the part of community players to contribute to the research process – and these are people who may not normally see themselves as being directly involved with education. Now they are able to see a link between themselves (as community leaders, for example) and the community-based teacher training model. This, in turn, has been a further impetus to community self-esteem. In all three countries research findings were also shared in stakeholder seminars and so this wider perspective on the impact of DE methodology in the community was also shared, helping to promote a broadened DE research conceptual capacity.

At least one of the Country Coordinators has grown significantly from his membership of an international research team and the rigours imposed by externally driven demands for outcomes, and has gone on to join one of the Lead Researchers on an international DE teacher training design assignment. Efforts are also being made, by others, to build local skills and expertise in research and reflective practice are being made. The Commonwealth of Learning (COL) has developed materials – Practitioner Research and Evaluation Skills Training (PREST) – to assist individuals and institutions to undertake affordable training<sup>2</sup>.

## 5.2 Implications

The research has affirmed the acknowledged advantages of DE teacher training:

- that it promotes wider access to training for disadvantaged and marginalised groups;
- that it can produce teachers who are at least comparable to conventionally trained teachers;
- it allows for immediate application, by the teacher, of skills learnt and competencies reached.

The Nigerian Country Report further states ‘that the overall impact of teacher training by distance education for policy can be found in cost effectiveness of the strategy, stability in the classroom, immediate application of knowledge and skills gained, increased access it offers to higher education and development of local experts in distance education’ (Nigeria Country Report, 2004: 41).

DE methodology has become a more credible and acceptable mode, and presents a variety of alternative options, as appropriate, for the training of teachers (Perraton 2001, Creed 2001). The DE in-service models are being delivered in the three countries researched in ways that empower both the teachers within the communities and the communities themselves. The communities are playing support, monitoring and supervising roles in the DE teacher training process. The research also indicates that the DE delivery model promotes development at the

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<sup>2</sup> These materials are available from COL and from their website at <http://www.col.org/resources/startupguides/prest.htm>  
Plans are also being developed to present online support and accreditation to those studying PREST.

local level and creates a system that could potentially be exploited further for community development as part of a much broader social strategy.

### **5.2.1 The school and teacher in the community context**

For many years primary schools in the countries considered in this research project were a focus of a community's energy, its vitality, self-worth and pride. They were the scenes of a range of community activities and initiatives, in addition to their formal educational function. However in recent years the small community-located schools have gone into decline, as teachers' salaries regressed relatively. This has led to a loss of teacher morale and status, and a need for teachers to spend more time away from the school pursuing supplementary small business and income generation activities. Teachers have felt increasingly neglected, often responding with poor public behaviour (e.g. drinking). Communities are well aware of this and have begun to voice contempt for these deteriorating behaviour standards. Centralised and local support for the schools has also declined, leaving them in a state of increasing disrepair. The ultimate consequence of this is that the school begins to disconnect from the traditional leadership and informal action structures in the community.

The DE model, with its school-based training, centred on the local community, has helped to reconnect the school with structures and dynamics in the community. The trainees, with their improving confidence and self-esteem, have become leaders and catalysts for new community activities, e.g. adult literacy, women's groups, HIV/AIDS awareness, nutrition and youth sports. New, local, NGOs are being driven by teachers whose leadership and organisational skills have been nurtured and supported by the school-based training model.

Support visits from DE delivery institutions and local education authorities have become a source of community pride. Rather than the local town or capital city being the source of power, decisions and wisdom, people of some stature are now spending time in the local community and collaborating with the local trainee support network. New community structures emerge and traditional leadership structures are able to use their support for these successful teacher training programmes to regain stature and to accord legitimacy to other community development initiatives.

Materials provided for the trainees, and wisdom shared by visiting support staff, have re-energised the professional and personal dynamics of other teachers in the local schools, propelling them into development initiatives.

The efforts of the teachers have promoted group activities which foster the development of organisational skills. The DE trainee teachers and support personnel (including visitors) have been able to offer support to newly emerging group and organisational structures.

Development at the community level is about confidence, pride and basic organisational skills. The school-based DE teacher training model has had a very strong influence on the development of these qualities, and thus helped to promote community initiatives which have their own appropriate dimensions, impact and momentum.

Above all, new pride and self-esteem emerging among the teachers and their communities have had a very positive impact on the status of schooling in the community. All these findings have implications for a number of stakeholders.

### 5.2.2 Implications for national policy makers

Bringing out the interconnectedness of distance and conventional modes of training teachers and the potential for planned impact in community development indicates a need for sector wide planning and policy development. Policymakers in government might consider several implications:

- Teachers have a role in the community, as change and development agents. What policies are required to promote this?
- When teachers are trained locally, community confidence and morale rise, affecting the quality and effectiveness of participation in decentralised local governmental systems. This may lead to a strengthened relationship between the community and government.
- When the local community is provided with a vision, and evidence, of what is possible in training (especially outside conventional formal schooling for young people), there are implications for the nature of local training and capacity-building models. Policy makers could be thinking more laterally when considering the nature of integrated local community development initiatives. For example, more planned use could be made of what may have originally been DE teacher training resource centres, which could well support other community-based activities.
- DE promotes the equalisation of opportunities in education. These opportunities will create a demand which policy makers should recognise and respond to.
- DE does not require as much physical infrastructure (for example, teachers' colleges) as conventional training, but it does require the upskilling and training (perhaps through ODL) of existing resource persons in the field. There is therefore a need to re-define job descriptions for positions which can offer support roles in the delivery of DE training. Those upskilled are now able to contribute, not only to DE and conventional teacher education but also more widely at the local level. This can strengthen the existing skill base at local government levels which are being given more service delivery responsibilities by central governments, in Nigeria and Uganda, as elsewhere.
- Governments should consider officially sanctioning and supporting the DE approach. At the moment, for example, in Uganda, most DE in-service teachers are self-funded, despite all the advantages and the acknowledged convenience of DE models.
- When teacher training occurs in schools and communities, expansion of educational provision (for example, at the basic level) becomes feasible while teaching and learning are continuing. This has implications for conventional teacher training programmes and is being recognised in models such as the IN OUT model planned for Malawi and the IN IN OUT model in Ghana where some of the initial teacher training is school-based (Mattson, 2006).
- 'Expenditure on learning resources in training institutions is often minimal and no mechanisms seem to exist to ensure that learning resources are replenished at some minimum level' (Lewin and Stuart, 2003:xi). Materials developed for distance education will be valuable to a larger group of players. Planning the extended use of such materials

may provide cost savings in the development of support/reference materials for teacher educators, conventionally trained teachers and even secondary students when subject content is high.

Thus, as governments work towards achieving the MDGs, they should, as part of their overall strategy, consider the contribution that DE of high quality can make to education generally and to strengthening social infrastructure.

### 5.2.3 Implications for institutional policy makers

This research leads us to believe that there are the following implications for educational institutions and their policy makers:

- Teachers should contribute to community development as role models and leaders. How can teacher education address this need? What is the role of the institution in this?
- Institutions should consider the methodology used in DE and how programmes are developed so as to maximise the benefits to community as well as the teacher; they should consider, for example, the balance between ‘content’ and ‘method’ in DE teacher education curricula.
- Where a traditional or conventional single-mode institution wishes to promote DE teacher education, it must determine the relationship between the new DE teacher educators and the conventional teacher educators. Policy makers must consider how to bring the conventional trainers ‘on board’ with the DE methodology. One way is by training specifically designed for the purpose, like the ‘Introduction to distance education’ course delivered at a distance to teacher educators in Uganda (Binns and Bradley 2004).
- What are the staff training needs more generally? The DE system is made up of individuals from many different parts of the education system, including administrators and the inspectorate. These other cadres also need an understanding of the DE methodology in order to be able to respond appropriately to the differing needs.
- What should the relationship be between DE institutions and programmes and others? How can relationships be strengthened where they already exist?
- In traditional institutions, how should DE be incorporated in strategic plans and systems?
- What quality assurance mechanisms will be used?
- What is the role of institutions in identifying teacher training needs in the communities and in the design of strategies to address these needs?
- How can the colleges work more closely with the schools in enabling reciprocal learning, research and reflective practice to promote the institutionalisation of up-to-date thinking and methodology in teacher training?
- For the institutional DE models, how will marketing, materials production and support services be organised?
- Which other organisations/institutions will institutions work with to promote community development?



This research has identified the role of the community in the design, development and implementation of DE teacher education programmes, that is, being a part of the training process, as a source of much pride for the communities involved. A follow-up to the research in Nigeria indicates that communities value the DE trained teacher so highly that they wish to make it easier for programmes to be implemented (for example by providing land and offering help in organisation and communication). Assistance from this level had not been forthcoming in the past, and when asked about this, those involved indicated that they had not been asked before (Ismaila, personal communication, 2003).

#### 5.2.4 Implications for teacher education

The research has indicated that in Nigeria, Uganda and Guyana DE programmes are producing teachers who are now considered, in significant respects, be more 'useful' and acceptable. They are also enabling these countries to produce significant numbers of trained teachers.

There are a number of implications for teacher education systems that should be considered:

- Can DE produce teachers of good enough quality? What is 'good enough'?
- The nature of the curriculum, and the balance of subject content and method, perhaps with deliberate inclusion of development enhancing strategies.
- The provision of a range of different models to reflect local and systemic needs for different levels, emphases and targets.
- Using DE to increase access, thereby making possible the provision of basic training to all teachers, and opening the potential to develop other 'top-up' multi-level programmes. This has potential for the overall upgrading of a country's teaching force.
- DE will make it possible to expand teacher education materials production and usage, staff training and the identification and development of support systems, especially at the community level.
- How to maximise, and facilitate, the contribution (in curriculum development, support structures, monitoring and supervision) of the community in the delivery of the DE training of teachers. How can local resource personnel be trained, supported and used in these systems? It seems that an element may be missing from the planning stages for implementing a DE strategy for training teachers. There is an apparent need to raise awareness at the most local level, consult people and find out what would be useful to them and how they might like to contribute. Work with the parent teacher groups and the local community leaders may provide unexpected interest, support and assistance.
- What should the nature of the teacher education institutions be; whether single mode DE, conventional, or dual mode conventional/DE. How should staff be used, and trained (or re-trained)? Training teacher educators using DE methodology exposes them to first hand experience of what it is like to study at a distance (Binns and Bradley, 2004). How should other resources and resource people be identified and used?
- What partners are required to facilitate development of community sensitive programmes?
- How will teaching practice be implemented, what can be learned from past experience and are there any benefits for conventional teacher education?
- What research capacity is there among teacher educators? How can they work together with academics in country and beyond to benefit from lessons learned elsewhere?
- What are the best uses of ICT in teacher education? What is appropriate to the local needs?

### 5.2.5 Implications for a future research agenda

This research, as stated above, has confirmed the advantages of DE for teacher training in the three countries concerned, and its success in producing teachers held in high regard by the profession and by the local communities. The implications for a future research agenda are the need to consolidate our understanding of the effectiveness of teachers trained by the DE model, in relation to conventionally trained teachers, and of how the advantages of DE confirmed by this research compare with those of other forms of teacher training. Whereas this research has tended to record current perceptions in a static sense, it highlights the need for comparative studies and evaluation of models, to inform policy makers who are endeavouring to get the best from their teaching professions.

Specifically the findings, and the questions raised, point to the following research challenges:

- The need for further comparative study of:
  - o DE teachers and those conventionally trained;
  - o DE teachers being trained now and those trained before;
  - o DE teachers trained in one country, or in one programme, using a particular model, and those in other countries, programmes and models.
- A comparison of the impact of these DE trained teachers and teachers trained conventionally in raising pupil performance. For example, are results improving in conventional teacher training programmes operating alongside DE programmes (i.e. employing the same people, using resources, facilities and skills developed in the DE delivery models), and is this having an effect on pupil performance in the classroom?
- Has DE actually provided the increased access, and the opportunities for equalisation in teacher education, for disadvantaged and marginalised groups, that seem to exist in other times and places?
- For what groups is DE teacher education most suitable, and in what contexts?
- How might ODL, teacher education and community development experts work together?

To undertake this research more local researchers are needed. The research described in this report was one opportunity to improve research capacity of teacher educators in three countries. This was not a process without hitches, but it is only a beginning and there is a need to make such learning an iterative process. In NTI there is a well developed research function, which other institutions might learn from. In Guyana this study followed a number of smaller ones and the earlier experience was certainly of benefit to the project. In Uganda, at Kyambogo University further small scale research projects are being undertaken, funded by a grant from the Nuffield Foundation, in an attempt to institutionalise the research process.

### 5.3 Conclusions

In many respects this research exercise has been a scoping one. By recording, at a particular point in time, perceptions of the impact of DE trained teachers, it raises further issues for education systems, and for the teacher education processes within these, as well as for the communities which participate in the training of teachers and are affected by these trained teachers. Key points are listed below.

- The research has confirmed (as well as affirming) what has generally been accepted in recent times; that is, that DE models of teacher training are producing credible, acceptable and competent individuals, and that the training does promote change and development in the teachers, their schools and local communities.
- DE as a system for training teachers is now acceptable. Many people (head teachers and others) who, in the research, rated the DE trained teachers/methodology as good, were conventionally trained themselves, and somewhat sceptical of the new methodology. There appears to have been a significant mind-set change.
- An overwhelming perception emerging from the study is that teachers trained by DE, in their home communities, are regarded as personally stable and professionally responsible. The training method appears to have improved their image and standing and this is a reversal of a recent trend in many of these communities.
- Related to the above is the finding that the profile of the teachers has been raised in the community. Because of their improved standing they are now being used more as role models and resource persons by the community, and this is important given the devolution of responsibilities and functions to local communities as part of government-driven decentralisation processes.

A further, and overwhelming, impression emerging from the study is the immense sense of pride, and boosting of confidence and self esteem:

- On the part of the trained teachers, at being empowered, in a stable environment, with families and local support structures. They have responded by gaining in self-esteem and self-confidence and are participating more widely, responsibly and productively in the community.
- On the part of the community who have felt empowered by the part they have played in the training processes. By hosting the trainee and the resource support persons the communities have gained 'ownership' of the training process, and have been crucially supportive in, and of, that process. This in turn seems to have enhanced empowerment, participation and democratisation in the local communities. This may have benefits when decentralised governance is considered in these countries.

The three country studies have also identified a range of players in local communities and education systems who have positively benefited from being exposed to, or participating in, the DE teacher training processes. We have discussed some of the ways in which DE might usefully be channelled in order to exert a more positive influence on community development.

This study also has implications for the development of a balanced approach to the use of distance education for teacher education in developing countries. There are many considerations to take into account and the point of equilibrium will vary from place to place and audience to audience.

The first balance to achieve is that between conventional and distance delivery of training. It is highly unlikely that any country will drop conventional college based initial teacher training and adopt an entirely distance delivery mode. However conventional training will not deliver the number of teachers required to meet universal basic education. Each country must select what is most suited to its needs and the likelihood is that a variety of multifaceted and flexible systems will appear as the next generation of field-based teacher education matures.

A second need is to balance resources to serve both rural and urban communities. The needs of these communities are often different and distance education may be more appropriate to rural situations, as in Guyana, where there are geographical drivers, or Uganda and Nigeria, where teachers trained in the colleges prefer to stay in an urban setting rather than return to the countryside. The sense of community ownership revealed in this research study might indicate another driver for distance education in a rural setting.

Within a DE system for teachers there are more balances to achieve. What should the content of the programme be? Is it to upgrade subject expertise or develop pedagogic and professional skills? Which media will be appropriate - print, radio, audio, video, online? How much learner support is enough and how will it be provided?

There is also the resource balance to consider. Ministries of education in the developing world have finite resources. They must therefore plan carefully how they fund initial teacher training and maintain a robust system of continuing professional development to keep their teachers up to date. They must also make difficult decisions about the balance between quantity and quality. Should they concentrate on training masses of teachers to meet classroom needs or create a smaller, high quality teaching profession? Somehow they must do both and high quality distance education methodologies may be part of the answer.

This research also identifies other balance issues in the DE system, particularly in relation to impact on the communities touched by it. Are there developmental activities that should be promoted and if so to what extent? Planning impact, particularly in rural areas, might distract from the primary focus of such a teacher education programme, but it is equally possible that the dividends would make such efforts very well worthwhile.



## References

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- Andrews, J., Housego, I. and Thomas, D. (1990) 'Effective in-service programmes in developing countries: a study of expert opinion', in V.D. Rust and P. Dalin (Eds) *Teachers and Teaching in the Developing World*, New York: Garland Publishing Inc.
- Ajayi, O. Y. (1997) *Evaluation of the Correspondence Delivery Mode and Support Services of the National Teachers' Institute Distance Learning Programme*, unpublished Ph. D thesis.
- Ataro Atim, A. and Wrightson, T. (1996) *Teaching Competencies Research*, NITEP: Uganda and IEC.
- Barnett, N., Abdel Mutalib, R. and Wrightson, C.G.A. (2001) *Mid-term Review of Building Literacy in Sudan Programme*, Cambridge: International Extension College.
- Binns, F. (2002) 'Wider community impact of open and distance education', Pan Commonwealth Conference paper, Durban: COL.
- Binns, F. (2004) 'Learning communities and participation in appropriate education: the women in fishing industry project', Pan Commonwealth Conference paper, Dunedin: COL.
- Binns, F. (2004 unpublished) *Capacity building at Kyambogo University, Uganda, A case study for IRFOL*, Cambridge: IEC.
- Binns F. and Bradley J. (2004) 'Staff development in distance education: the evolution of one approach', Pan Commonwealth Conference paper, Dunedin: COL.
- Binns, F. and Pennells, J. (2000) 'Maximising the human resource base in distance education in small states: Guyana and the Guyana in-service distance education project', Distance Education in Small States Conference, Jamaica.
- Bown, L. (2005) 'Scenarios for the renewal of African universities: outworkers in the global knowledge production or members of a trans-African scholarly community', Paper presented at Reintegrating Education, Skills and Work in Africa conference, Edinburgh.
- Brent, J. and Brent, M. (1992) *Outreach Work in the Youth and Community Service*, London Borough of Hounslow Youth and Community Service.
- British Council (2002) *Nigeria Community Education Project*, Nigeria: British Council.
- Chabal, P. and Daloz, J.P. (1999) *Africa Works: Disorder as Political Instrument*, Oxford and Indiana: James Currey and Indiana University Press.
- Commission for Africa (2005) *Our Common Interest*, Commission for Africa.  
([http://www.commissionforafrica.org/english/report/thereport/english/11-03-05\\_cr\\_report.pdf](http://www.commissionforafrica.org/english/report/thereport/english/11-03-05_cr_report.pdf)).
- Creed, C. (2001) *The Use of Distance Education for Teachers*, Report to DFID, Cambridge: IRFOL.

- de Moura Castro, C., Wolff, L. and Garcia, N. (1999) 'Mexico's Telesecundria', in the online journal TechKnowLogia September/October ([http://www.techknowlogia.org/TKL\\_active\\_pages2/CurrentArticles/main.asp?IssueNumber&FileType=PDF&ArticleID=6](http://www.techknowlogia.org/TKL_active_pages2/CurrentArticles/main.asp?IssueNumber&FileType=PDF&ArticleID=6)).
- Department for International Development (2001) *Imfundo: Partnership for IT in Education : Inception Report*, London: DFID.
- Dodds, T., Perraton, H. and Young, M. (1972) *One Year's Work: The International Extension College 1971-1972*, Cambridge: IEC.
- Ekpunobi, E. N. (2002) *An Evaluation of the National Teachers' Institute's NCE (DLS) Integrated Science Programme*, unpublished M. Ed thesis.
- Farnes, N.C. (1993) 'A distance education contribution to a social strategy to combat poverty: Open University Community Education courses in Glasgow', *International Journal of Lifelong Education*, 12:(3), 191-204.
- Ismaila, U.Y., Mohammed, A.M., Durodola, S.L. and Ekpunobi, E.N. (2004) *Teacher Education at a Distance; Impact on Development in the Community: Country report – Nigeria*, Cambridge: IEC. (<http://www.iec.ac.uk/research.html>).
- Leach J. (2003) ([www.id21.org/zinter/id21zinter.exe?a=6&I=InsightsEduIart1&cu=40741166](http://www.id21.org/zinter/id21zinter.exe?a=6&I=InsightsEduIart1&cu=40741166)).
- Leach, J., Moon, B. and Power, T. (2002) 'Building teachers' professional knowledge through ICT: experience and analysis across the "digital divide"' (<http://www.leeds.ac.uk/educol/documents/00002349.htm>).
- Levin, K. M. and Lockheed, M.E. (Eds.) (1993) *Effective Schools in Developing Countries*, London: Falmer.
- Lewin, K. M. (2002) 'The cost of supply and demand for teacher education: dilemmas for development. Researching teacher education: the Multi-Site Teacher Education Research project'. *Special issue of International Journal of Educational Development* 22.
- Lewin, K. and Stuart, J. (2003) *Researching Teacher Education: New Perspectives on Practice, Performance and Policy*, MUSTER synthesis report, London: DFID (<http://www.sussex.ac.uk/usie/muster>).
- McCulloch, V. (2005) *Should NFE Programmes Target Women? with special reference to the 'Women in Fishing Industry Project*, Cambridge: IEC.
- Mahlck, L. and Temu, E.B. (1989) *Distance versus College Trained Primary School Teachers: a Case Study from Tanzania*, Paris: International Institute for Educational Planning.

- Mattson, E. (2006) *Field-based Models of Primary Teacher Training: Case Studies of Student Support Systems from Sub-Saharan Africa*, London: DFID.
- Perraton, H. (1993) (Ed) *Distance Education for Teacher Training*, London: Routledge.
- Perraton, H. (2000) *Open and Distance Learning in the Developing World*, London: Routledge.
- Perraton, H. (2000b) *Teaching the Teachers*, Cambridge: IRFOL.
- Perraton, H. (2001) *Models for Open and Distance Learning: Teacher Education*, Cambridge: IRFOL.
- Perraton, H (2003) *Models for Open and Distance Learning, 1: Teacher education and training*, Vancouver: Commonwealth of Learning.
- Perraton, H. and Creed, C.(2000) *Applying New Technologies and Cost Effective Delivery Systems in Basic Education* (Thematic study for Education For All 2000 Assessment), Paris: UNESCO.
- Perraton, H., Creed, C. and Robinson, B (2002) *Teacher Education Guidelines: Using ODL – Technology, Curriculum, Cost, Evaluation*, Paris: UNESCO.
- Robinson, B. (1997) 'Distance education for primary teacher training in developing countries' in Lynch, J., Modgil, S. and Modgil, C. (Eds.) *Education and Development: Tradition and Innovation, Volume 3: Innovations in Delivering Primary Education*, London: Cassell Educational Press.
- Robinson, B. (2003) 'Evaluation research and quality', in Robinson, B. and Latchem, C. (Eds) *Teacher Education through Open and Distance Learning: World Review of Distance Education and Open Learning, Vol 3*, London: Routledge/Falmer.
- Robinson, B., Creed, C. and Perraton, H. (2001) *Teacher Education through Distance Learning: Technology, Curriculum, Cost, Evaluation*, Paris: UNESCO.
- Robinson, B. and Latchem, C. (Eds) (2003) *Teacher Education through Open and Distance Learning: World Review of Distance Education and Open Learning, Vol 3*, London: Routledge/Falmer.
- Robinson, B. and Murphy, P. (1996) *Upgrading the Qualifications of Serving Primary Teachers using Distance Education in Uganda: A Comparative Study of Costs and Effectiveness*, Cambridge: IEC.
- Senkomago, N.S. (2004) *Teacher Education at a Distance; Impact on Development in the Community: Country Report – Uganda*, Cambridge: IEC (<http://www.iec.ac.uk/research.html>).



- Thomas, D. (2000) 'Guyana in-service distance education (GUIDE): Promise and performance', *Open Praxis*, 2.
- Thomas, D. (2004) *Teacher Education at a Distance; Impact on Development in the Community: Country Report – Guyana*, Cambridge: IEC (<http://www.iec.ac.uk/research.html>).
- UNESCO Country Reports on EFA:  
([www.unesco.org/education/efa/efa\\_2000\\_assess/index.shtml](http://www.unesco.org/education/efa/efa_2000_assess/index.shtml)).
- UNESCO (2002) *ICT in Teacher Education: A Planning Guide*, Paris: UNESCO.  
(<http://unesdoc.unesco.org/images/0012/001295/129533e.pdf>).
- UNESCOa (nd) 'Guyana in-service distance education (GUIDE) project', Innodata databank,  
([www.ibe.unesco.org](http://www.ibe.unesco.org)).
- UNESCOb (nd) 'Guyana Hinterland teacher training project', Innodata databank,  
([www.ibe.unesco.org](http://www.ibe.unesco.org)).
- UNESCO (2005) *EFA Global Monitoring Report Education for All: The Quality Imperative*  
([http://portal.unesco.org/education/en/ev.php-URL\\_ID=35939&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/education/en/ev.php-URL_ID=35939&URL_DO=DO_TOPIC&URL_SECTION=201.html)).
- Ward, M., Bourne, J., Penny, A. and Poston, M. (2001) 'Why do education policies in East Africa fail? What's changing?' Paper for the Oxford International Conference on Education and Development, 2001.
- Wrightson, C.G.A. (1998) *Distance Education in Action: the Northern Integrated Education Project in Uganda*, Cambridge: IEC.
- Yates, C. (1993) 'New Technology in Distance Education', Unit 9, in Course 4, *The Organisation of Distance Education*, MA/Diploma in Distance Education, Cambridge: IEC/University of London.
- Yates, C. and Bradley, J. (Eds) (2000) *Basic Education at a Distance, World Review of Distance Education and Open Learning, Vol 2*, London: Routledge.
- Yaya, D.O. (1992) *The Development of Distance Learning Course Materials for the Nigerian Certificate in Education (NCE) Programme of the National Teachers Institute*, Kaduna, unpublished M. Ed. Thesis
- Young, M., Perraton, H., Jenkins, J. and Dodds, T. (1991) *Distance Teaching for the Third World: The Lion and the Clockwork Mouse* (2nd edition), Cambridge: IEC.

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10/06 0.8K Produced for DFID by Fuller-Davies Limited

ISBN 1 86192 819 X