



THE COMMONWEALTH OF LEARNING

**Distance Education and Open Learning
in Sub-Saharan Africa: Criteria and Conditions
for Quality and Critical Success Factor**

**Working Group on Distance Education and Open Learning
A Survey of Policy and Practice**

FINAL REPORT

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Section One: Framework, Sources and Approach

ADEA's research into DEOL in sub-Saharan Africa

ADEA (2002, 2003) notes that with increasing demand for access to educational opportunities at all levels, and often decreasing budgets in real terms for educational provision, there has been a growing interest in sub-Saharan Africa (SSA) in the possibilities of distance education and open learning (DEOL) as a credible alternative to replicating traditional contact-based schools, colleges and universities.

The debate in SSA has tended to be centred more upon cost advantages than open access, but both considerations are important. In a companion report we discuss costing considerations for DEOL provision based on current actual practice. In this report, we are concerned with the conditions necessary for success with DEOL provision. It is hoped that when read together, the two reports will be seen as complementary and an aid to informed decision-making.

The two ADEA reports (2002, 2003) indicate that there is a wide geographical divide over the impact that DEOL provision has had in SSA. DEOL has not had a major role to play in francophone Africa to date but has played a more significant role in Anglophone countries, especially in the southernmost part of the sub-continent. In the south there is a longstanding active regional association, the Distance Education Association of Southern Africa (DEASA), several active national associations and a number of well-established DEOL providers including the University of South Africa (UNISA), Technikon Southern Africa (TSA), the Open University of Zimbabwe, the Namibian College of Open Learning (NAMCOL) and the Botswana College of Open and Distance Learning (BOCODOL), among others. Within South Africa at any one time some 50 providers of DEOL are actively involved in the National Association of Distance Education Organisations of South Africa (NADEOSA).

Development of criteria and conditions for quality for DEOL in SSA

Why criteria and conditions of quality for DEOL in SSA?

Carefully conceptualised and implemented DEOL has demonstrated great potential for vastly increasing the flexibility of education provision, providing education to people where, when and how they want it. In particular it can provide lifelong educational opportunities for experienced adults, especially women, whose life circumstances preclude participation in institutions that demand near full-time attendance at places far away from where they live and work. It has also been shown to be a cost-effective method of educational provision (see companion report), particularly when used in mass educational programmes involving large numbers of learners. These characteristics are particularly important for developing countries with rural communities who are in need of affordable education, who reside far from educational institutions and who carry diverse responsibilities precluding them from attending classes.

However, distance education methods do not automatically equate with good educational provision. To become a meaningful alternative to more traditional provision, distance education practices need to be transformed by sound educational principles.

This document provides a set of criteria and critical success factors for DEOL in SSA for providers, national departments of education, international partners and other stakeholders and explains under what conditions DEOL can realise its potential. In order to ground the criteria in practice, they are accompanied by illustrative examples from a variety of relevant programmes and projects in the region.

Sources For The Criteria And Conditions For Quality DEOL Programmes

Sources for criteria, conditions and critical success factors

In 1996, the National Department of Education of South Africa contracted SAIDE to assist with the development of a discussion document entitled *A Distance Education Quality Standards Framework for South Africa* (Directorate: Distance Education, Media and Technological Services, Department of Education, 1996). After extensive comment from the distance education community, a policy statement was prepared, *Criteria for Quality Distance Education in South Africa: A Policy Statement* (Department of Education, 1998, supplied as an appendix to the 2002 ADEA report cited earlier).

The changes in distance education and in quality assurance both nationally and internationally in the last five years gave rise to the need for a revision of these criteria. The Higher Education Quality Committee of the South African Council on Higher Education therefore requested SAIDE to produce a comprehensive set of criteria that could be used for self-evaluation by providers offering distance education programmes. This set of criteria was discussed with NADEOSA members in a workshop in August 2003. The framing criteria in Section Two of this document are from the resulting document, *Criteria for Quality Distance Education in South Africa - 2003*. The critical success factors for SSA in this document represent a contextual prioritisation of the South African criteria for SSA and rural contexts.

A companion to the *Criteria* document, *Minimum Targets for Distance Education in South Africa – 2003*, was developed based on SAIDE's understanding of particular areas of poor practice in distance education in South Africa. The aim of this document was to focus on areas in particular need of attention in order to improve the quality of distance education – in other words, critical success factors. This document was used in a DEASA workshop for country representatives from Namibia, Botswana, Lesotho, Swaziland and South Africa on 4 October 2003 at UNISA in South Africa. The aim of this workshop was to explore how applicable the South African critical success factors were to other countries in the region.

Critical success factors with particular application for rural contexts were developed on the basis of a range of rural education research projects conducted with funding provided by the Kellogg Foundation from 1999 to 2003:

- “Jozini Case Study: An examination of formal and non-formal programmes in Jozini,” July 2000.
- “A Case Study of the Fort Hare Distance Education Project,” B. Prim (ed.), November 2000
- “A Case Study of the Promat College Contact Session at Jozini,” September 2000
- “Assessment of the Feasibility of Approaches to Groundwater Awareness-Raising: Key elements and recommendations,” Mvula Trust, 2000.
- “What Is A Learning Centred Learning Centre?”, SAIDE, 2003, forthcoming.

Examples for the illustration of the critical success factors were drawn from the following SAIDE work:

- “Experience in the Implementation in Gauteng, Mpumalanga and Limpopo of the National Professional Diploma in Education,” a teacher upgrading programme targeting mainly rural teachers.
- “Strategies for the Design and Delivery of Quality Teacher Education at a Distance: A case study of the further diploma in education (English language teaching), University of the Witwatersrand, 1998.
- “Learner Support in Distance Learning: A South African programme perspective,” 1999.
- “Evaluation of the Assessment Practices in the Flexible Learning B. Ed. offered by the University of the Witwatersrand in 1999,” 2000.
- “Adult Learner Focused Programme Study.” Report prepared for the Joint Education Trust, February 2001.

Critical success factors for the region and certain examples were drawn from research undertaken specifically for this report:

- Accounts of SAIDE projects in, or engagement with distance education programmes in SSA in countries such as Ethiopia, Botswana, Namibia, Kenya, Mozambique and, more tenuously, francophone Africa.
- Research into the use of information and communications technologies (ICTs) for quality DEOL in SSA (see Appendix)
- Engagement with DEOL projects in Kenya, Namibia and Botswana
- The report of the DEASA workshop on 4 October 2003
- Limitations of the selected framework document.

Framework document

There are 13 criteria in the framework document, *Criteria for Quality Distance Education in South Africa*, each with an overview statement followed by a number of detailed sub-criteria or elements. Together these form reasonably detailed descriptions of the current view of quality distance education provision. The 13 criteria are:

- Policy and planning
- Learners
- Programme development
- Course design
- Course materials
- Assessment
- Learner support
- Human resource strategy
- Management and administration
- Collaboration
- Quality assurance
- Information dissemination
- Results

As can be seen in the *Criteria*, there is a distinction between programme development, course design and course materials. These terms are defined in the 1998 *Criteria* document as follows:

Programme development concerns itself with the curriculum in macro planning of groups of courses, how they combine to realise a general educational goal or set of outcomes (such as a degree, diploma or certificate), as well as the procedures governing access and articulation with other programmes (see below for a discussion of these terms).

Course design concerns itself with planning the content, pedagogy and assessment in individual courses. The course is more than the materials. It is the structure of learning that is designed into those materials, and includes the range of learner support mechanisms and assessment strategies that are integrated with course materials in providing the course to the learner. Thus, course design involves looking at all of the elements of a course, and ensuring that they are integrated in the most educationally appropriate and cost-effective ways.

Course design involves selection of media and technology. The *Criteria for Quality Distance Education* follow the understanding of these terms provided by the Discussion Document entitled *Technology Enhanced Learning Investigation in South Africa*. *Media* are means of communication such as face-to-face contact, written text, graphics, audio communication, or video communication. Various forms of *technology* provide the means of delivery. For example, written text can use either print technology or computer technology as a means of delivery.

Course materials (otherwise called courseware) are the concrete products that are results of programme development and course design activities. They are learning materials in any medium or combination of media. The way they are presented and used is determined by how they are structured into the overall design of the course.

The above definition of “programme” places it in the formal domain of accredited educational programmes. In rural contexts, “programme” may well be used to refer to a collection of educational initiatives that are directed to a single purpose. For example, the Jozini Effective Schools Project is described as follows in the Jozini Case Study.

The Jozini Effective Schools Project (JESP) is a community-based teacher development programme, which originated in 1996, and was firmly established in 1998 to address problems associated with poor quality education in Jozini schools.

The programme identifies the needs of its participants and addresses them by contacting service providers who then offer relevant services. The content of JESP programmes is determined by identifying the needs of the fourteen Jozini schools (individually or as a group) at a monthly meeting of the JESP Committee meeting. Once these needs have been identified, service providers are contacted to help with courses, workshops, seminars, or anything required addressing selected problems. Currently, programmes run by the JESP are as follows:

- Molteno: Offers a literacy programme in isiZulu and English
- Read: Distributes books and offers reading programmes
- Media in Education Trust: Provides workshops in media studies
- Subject Committees: Assist teachers to improve their subject knowledge
- Zululand Chamber of Business Foundation: Management skills.
- Amesa: Maths
- Chamber for Business (CFB) Training & Consulting: Frontline Skills

In contextualising the *Criteria* for rural contexts, both the formal and the non-formal ways of referring to programmes need to be embraced.

Similarly, when it comes to course design, the requirements for non-accredited courses will be different from those of accredited courses. But both of these are present in rural contexts.

Limitations of the framework

Inevitably, the *Criteria* document has limitations. The first is that the criteria are biased towards dedicated distance education providers, or dual-mode providers (those whose institutional missions state that programmes can be delivered in two modes – distance or traditional face to face).

Other SAIDE work has dwelt extensively on the collapse of the distinction between face-to-face and distance provision. As was pointed out most recently:

Distance education now no longer only takes place in dedicated distance institutions. A large proportion of public contact institutions in South Africa have some experience of distance programmes, and many private providers have some or all of their programmes offered at a distance (SAIDE 2003).

The fact that there is a bias in the *Criteria* to dedicated or dual-mode forms of distance provision does not, however, mean that the criteria are not applicable to providers who may have programmes that use distance education methods, but no institutional commitment to distance education as yet. Such providers would merely focus on the programme specific criteria, and take less notice of the criteria that clearly apply to the institution as a whole.

Distance education provision in SSA is carried out by the full range of providers – dedicated distance, dual-mode and traditional contact institutions with some distance programmes. It is even carried out by relatively small organisations, non-governmental organisations (NGOs) or community-based organisations. The *Criteria* would therefore need to be interpreted appropriately according to the size and degree of formal organisation of the provider.

The second limitation is that there is a bias in the *Criteria* document towards large institutional providers of formal, accredited programmes. Although, particularly since the advent of the National Qualifications Framework in South Africa and similar initiatives elsewhere, the thrust is increasingly towards formal accredited programmes based on whole qualifications or unit standards, there are still a large number of non-accredited programmes. These are often community-based and operating in rural contexts. The view that emerges from the Jozini case study is that in rural contexts,

both accredited and non-accredited programmes are essential and there needs to be a symbiotic relationship between them. If we are to address the needs of the community as a whole, we need to engage with the community as a whole and create a community-wide vision driven by community-based structures and interests. Within this, more informal approaches can be effective in addressing systemic issues and challenges, while accredited programmes focussing on individuals offer opportunities to address personal esteem and self-actualisation needs.

A great deal of the contextualisation of the original criteria for SSA, and particularly for rural education in SSA, is directed towards meeting the needs of less formal programmes which arise from the community as a whole, and aimed at meeting community needs, rather than merely the accreditation needs of an individual within the community. However, it is important that both accredited and non-accredited programmes are present in rural contexts and work together.

A third limitation of the *Criteria* document is that the 13 criteria relate to institutional rather than national provision. They describe the kinds of things that institutions and/or programmes need to do to ensure quality provision. They do not talk about national or

regional policy and planning for DEOL. However, in developed countries or countries with a federal system, national policy may have only a very indirect influence on institutional provision, but in developing countries with limited resources and huge educational backlogs, national policy and planning must play a much more central role.

Creating An Enabling Environment At The National Level

Hülsmann (2000) identifies the following three conditions for the efficient and effective provision of DEOL:

- A clear policy
- An appropriate institutional culture
- The consideration of costs

The second of these conditions is the main focus of Section Two of this report, while the third point is covered in the companion report on costing.

This section is concerned with the first condition: a clear policy. DEOL providers in SSA consider that a clear policy at national level is a necessary condition for creating an enabling environment at the national level. This policy should relate not only to DEOL provisioning, but also to the related area of the use of ICTs for DEOL. The expense of the introduction of ICTs, the complex nature of the communications infrastructure required for the use of ICTs and the human resource development implications of the introduction of ICTs mean that it is essential, particularly in developing countries, for there to be ICT policy and planning at a national level. Providers cannot go it alone.

The views of providers in Kenya, Botswana, Lesotho and Namibia on the need for national DEOL policy follow. Thereafter, the priorities for ICT policy in the region, drawn from the proceedings of a workshop on ICTs in African schools in April/May 2003 in Botswana and involving Botswana, Cameroon, Egypt, Ethiopia, Mali, Senegal, South Africa and Uganda are identified.

The Need For National DEOL Policy In SSA Countries

Kenya

In recent engagements with the Ministry of Education and the top management of higher education institutions in Kenya, the need for a vibrant national policy on DEOL emerged very strongly. At present, distance education provision is not coordinated with various providers making ad hoc plans, which are likely to result in duplication and a lack of mechanisms for ensuring quality. In addition, the potential of distance education and open learning methods in all sectors of education, but particularly in teacher education,

has not been sufficiently explored. Finally, there is little infrastructure for distance education and open learning, and their needs to be a national effort to establish appropriate conditions for distance education strategies to succeed.

The following summary of information from different institutions outlines the kinds of concerns raised by providers in Kenya. Dr. Wanjiku Mwangi obtained the information verbally during a visit to Nairobi. The “success factors” for DEOL provision as itemised here should be regarded as “constraints and challenges.” Many of those contacted stated that, at the present time, Kenyan DEOL providers cannot talk about the success of their programmes, in view of the major challenges and constraints that they have to confront in their attempts to offer DEOL-based programmes to learners.

EGERTON COLLEGE OF DISTANCE EDUCATION

Critical Success Factors

- Formulas for subsidies
- Development of an adequate funding policy
- Generating an inclusive debate on DEOL
- How to push ODL to the level of international recognition
- Ways, means and mechanisms of developing a responsive and vibrant approach to DEOL
- Providing meaningful access to ever-increasing numbers of learners

KESI: KENYA EDUCATION STAFF INSTITUTE

Critical Success Factors

- How to legitimise DEOL at national/institutional policy and programme levels
- The urgency of conducting a broad-based needs analysis
- Strategies, measures and mechanisms for the expansion and massification of access
- Confronting the major challenge of offering scientific and technical subjects while maintaining the sustainability of projects
- Revamping and improving DEOL infrastructure countrywide
- Establishment of quality assurance (QA) and quality control mechanisms for DEOL
- Developing an environment within which practical subjects can be offered to learners
- Forging partnerships and collaborative arrangements with other national, regional and international DEOL providers, be they public or private
- Obtaining funding support for learners
- Establishing Internet facilities for the application of ICTs in the delivery of quality DEOL programmes
- Collaborating in the design and development of learning materials
- Addressing and dealing with issues related to copyright, joint authorship and institutional/individual ownership of DEOL materials
- Meeting production and distribution costs of DEOL materials
- Ensuring the production and distribution of good quality materials
- Identifying and establishing appropriate learner support measures for the retention of students

- Adopting and extending Web-based learning and e-learning.
- Undertaking realistic costing of DEOL
- Developing mechanism and criteria for recognition of prior learning

KENYA INSTITUTE OF SPECIAL EDUCATION (KISE)

- *Critical Success Factors*
- Expanding the services offered by special education in order to reach as many needy and/or disadvantaged learners as possible
- Developing the necessary infrastructure to accommodate many more DEOL special needs learners.
- Establishing frameworks and mechanisms for ensuring the quality of the special education programmes, and building capacity through training of special education staff
- Responding to greater demands for access

UNIVERSITY OF NAIROBI

Critical Success Factors

- Developing a comprehensive national-level policy and programme framework for DEOL
- Legitimising open learning and distance education at the highest levels of government and higher education institutions
- Undertaking large-scale training of staff in order to build and strengthen their capacity for quality DEOL delivery, and for the necessary learner-centred support
- Undertaking measures that will lead to the massification of learner access into tertiary-level education institutions through the DEOL route
- Developing regional level partnerships and collaborative arrangements for the delivery of mutually beneficial DEOL programmes

Botswana

Botswana country representatives at the DEASA workshop in October 2003 at UNISA in South Africa said that DEOL policy should operate at three levels: national, institutional and individual.

- **At the national level,** governments should be involved in facilitating, increasing and deepening DEOL access for learners. Governments should also develop strong, integrated national-level policies to support DEOL providers, so that ODL becomes a cutting edge alternative route to further education and qualification. DEOL programmes should not be marginal, but should be a central component of national-level higher education systems.

- **At the institutional level**, DEOL institutions should provide adequate and effective administrative and management support to their DEOL programmes. Senior management personnel should be trained in, or sufficiently conversant with, the requirements and conditions for providing quality programmes. Institutions should also develop and implement learner-support strategies and activities. In particular, learner support should be decentralised and learner-centred.
- **At the individual level**, strategies and measures that encourage individual learners and potential learners to develop a positive attitude and inclination towards DEOL should be developed and put in place in order for DEOL programmes to gain wide acceptance and legitimacy by learners. Advice and counselling should be available to learners for their better understanding of DEOL and what it involves so that they do not make wrong choices of what programmes or courses to register and enrol for. Additionally, addressing such needs at the individual level would contribute to higher retention rates and lead to the significant lowering of learner dropout rates.

Without top-level policy support for DEOL, other related problems are precipitated and these further alienate the potential of DEOL to transform the entire national/regional systems of provision. For instance, Botswana has reported that lack of a government-driven legitimisation of DEOL has led to the following:

- Lack of understanding of what DEOL is and what it entails as a method of accessing further educational opportunities
- Lack of or inadequate strategies and actions for promoting, marketing and legitimising DEOL
- A nationally pervasive resistant and/or negative attitude and mindset towards DEOL

All this means that governments should:

- Develop and establish a comprehensive and integrated DEOL policy at the national level
- Encourage at the institutional level a conscious integration of the “three-legged DEOL pot,” whereby the three key pillars of distance education (administration and management; institutional support; and materials design, production and delivery), are harmonised and synergetic
- Develop strategies to change negative perceptions and attitude towards distance education

Lesotho

Similarly, Lesotho has emphasised the critical need for top-level government support for DEOL. A national-level policy is required to clearly identify and delineate the roles of government and public and private distance education institutions at international, national and institutional levels. Senior levels of institutional management need to provide appropriate and timely administrative support for distance education.

The following specific issues were reported to pose major problems for the successful design, delivery and integration of DEOL programmes at the national level:

- Lack of advocacy and promotion for DEOL programmes
- Lack of comprehensive planning at all stages, ranging from learner and programme needs assessment, design, implementation, availability and provision of both human and financial resources
- The need to identify and recruit qualified and competent distance education practitioners.

Namibia

Namibia has identified the three most important factors that contribute to success in design and delivery of DEOL programmes at the national level:

- Support of DEOL programmes by senior management of distance education institutions. Advocacy is needed to sensitise senior management about the particular needs of DEOL provision.
- Full integration of the three pillars of DEOL provision: administration; learner support structures, procedures and mechanisms; and course design and development.
- Comprehensive planning for provision of DEOL programmes that would also incorporate, for example, assessment of learners' needs, taking account of their diverse contexts and backgrounds. In addition, DEOL materials should be prepared and be fully ready before a particular course is designed, developed and offered.

ICTs and quality delivery of DEOL: SSA regional trends

A workshop on ICTs in African Schools organised for practitioners and policy-makers (Gaborone Botswana, 27 April to 2 May 2003) focused on the experiences of eight countries involved in a regional collaborative ICT programme: Botswana, Cameroon, Egypt, Ethiopia, Mali, Senegal, South Africa and Uganda. The programme targeted establishing and developing an ICT-based African Teachers' Network through the implementation of a teacher training strategy.

Critical success factors for the application of ICTs were identified at this workshop, and although they were not specifically targeted at DEOL provision in these countries, they can be regarded as being applicable to both (contact) school-based and DEOL-based modes of provision. The following are the generic regional categories of ICT-related critical success factors:

- It is necessary to match educational investments in the increased use of ICTs in SSA, with efforts to build and strengthen training capacity and support in the effective use of these technologies. The sustainability of ICT programmes is dependent on trained and supported staff.

- The dramatic increase in the number of technology-based models currently available for developing and delivering educational programmes means that national governments need to intervene to help providers select models that are appropriate for the teaching and learning environment in which they will be used.
- Human resource development initiatives need to focus on understanding and identifying the specific requirements and conditions for integrating ICTs into curriculum design and development.
- Effective ICT-based educational solutions need to be proposed and they need to be relevant and implementable at all levels.
- Effective ICT integration demands the development of a critical mass of trained educators who are able to keep abreast of the ever-changing nature of ICTs.
- Plans need to be in place to deal with the technical and administrative problems that arise with the introduction of ICTs (such as incompatibility of hardware/software, technical support and the ongoing costs of maintenance and upgrading).

A full report of this workshop and its relevance for ICTs in DEOL in SSA is contained in the Appendix.

Section Two: Criteria and Critical Success Factors

Introduction

This section presents the full text of the *Criteria for Quality Distance Education in South Africa – 2003* (presented in italicised type under each of the criterion headings). Following each are the critical success factors for sub-Saharan context and a number of illustrative case studies and examples.

Table 1, below, summarises the 13 criteria and comments on the priorities for the sub-Saharan context.

Table 1: Summary of Criteria for Quality Distance Education in South Africa – 2003

2003 Criteria for Quality Distance Education in South Africa	Contextual priorities for SSA
<p>1. Policy and planning</p> <p><i>The educational provider has a clear sense of purpose and direction, which is informed by national priorities as well as by the quality demands of cost-effective educational provision. There are both rationale and relevant systems for the use of distance education methods to achieve the purpose of the programme for the target learners.</i></p>	<p>The two priorities for SSA are:</p> <ul style="list-style-type: none"> • Policies and plans for programmes should be based on and aligned with regional and local priorities, rather than the agenda of international funders and development agencies. • Conscious design of distance education systems is necessary in ways that are sensitive to resource constraints and local conditions.
<p>2. Learners</p> <p><i>There is up-to-date detailed information about past, present and potential learners. This is used to inform policy and planning of programme development, course design and materials development, learner support, and other relevant aspects of educational provision.</i></p>	<p>Analysis of the needs of the target audience and collection, maintenance and use of learner information is critical in all distance education, but particularly complex in rural contexts. In addition, management of information is needed – monitoring information will enable providers to identify and act to support inactive or at-risk learners.</p>
<p>3. Programme development</p>	

2003 Criteria for Quality Distance Education in South Africa	Contextual priorities for SSA
<i>Programmes are flexible and designed with national needs as well as the needs of prospective learners and employers in mind; their form and structure encourage access and are responsive to changing environments; learning and assessment methods are appropriate to the purpose and outcomes of the programmes.</i>	For SSA, and particularly for rural contexts, developing programmes based on national research as well as needs analyses of the target audience is important. “Flexibility” may also be interpreted in different ways in rural contexts (e.g., flexibility to accommodate social, traditional and cultural factors). Responsiveness to local needs may make it necessary to allow the programme to develop incrementally, instead of according to a complete plan developed before implementation.
4. Course design	
<i>The course curriculum is well researched, with aims and learning outcomes appropriate to the level of study; content, teaching and learning and assessment methods facilitate the achievement of the aims and learning outcomes; there is an identified process of development and evaluation of courses.</i>	Although biased towards formal and accredited programmes, the elements of this criterion are fundamental to sound course design in whatever context. However, dimensions of course design particularly crucial in rural contexts are: <ul style="list-style-type: none"> • Ensuring that the courses are coherently designed and packaged • Ensuring that the choice of media and technology is appropriate for the needs of the learners and the demands of the programme
5. Course materials	
<i>The content, assessment, and teaching and learning approaches in the course materials support the aims and learning outcomes; the materials are accessibly presented; they teach in a coherent way that engages the learners; there is an identified process of development and evaluation of course materials.</i>	Well-defined plans for the development and review of course materials are critical to ensure that courses can be delivered on time and that they are not out of date. Also important is consideration of the language of the materials for environments in which the levels of exposure to the usual medium of instruction (English) are low; and the contextualisation of the materials so that rural learners are not alienated from the content, but can recognise and identify with it.
6. Assessment	
<i>Assessment is an essential feature of the teaching and learning process, is properly managed, and meets the requirements of</i>	Assessment can be a difficult experience for learners remote from provider organisations, particularly institutions of higher learning. In

2003 Criteria for Quality Distance Education in South Africa	Contextual priorities for SSA
<i>accreditation bodies and employers.</i>	addition to providing sufficient assessment opportunities for learners, providers need to make an effort to minimise the stress for learners by making the process transparent, supportive and affirming, while not compromising on the standards required. Effective quality assurance and management of assessment is also crucial.
<p>7. <i>Learner support</i></p> <p><i>Learners are provided with a range of opportunities for real two-way communication through the use of various forms of technology for tutoring at a distance, contact tutoring, assignment tutoring, mentoring where appropriate, counselling (both remote and face-to-face), and the stimulation of peer support structures. The need of learners for physical facilities and study resources and participation in decision-making is also taken into account.</i></p>	In the African context, particularly in rural areas, distance education methods can be used to create wider access to educational opportunity. However, mere access is insufficient. Learners need to be given a reasonable chance of success as well. For this reason, learner support needs to be an integral part of the design of programmes for rural learners and conducted in ways that allow for proper interaction between the tutors and learners. A particular emphasis in learner support in rural contexts is the use of learning centres in a range of ways.
<p>8. <i>Human resource strategy</i></p> <p><i>The staff structure as well as the experience, qualifications, responsibilities and job descriptions of staff are appropriate for the education and training services provided; staff development programmes equip staff to perform their roles and tasks effectively.</i></p>	Although the issues in distance education generally and in distance education for rural contexts are broadly similar, there is one major factor that needs to be taken into consideration: it is much more difficult in rural areas to attract sufficient qualified and experienced tasks for the complex range of staff functions required in distance education. It is critical to integrate staff development in imaginative ways into the planning and implementation of the programme so that all staff are continually learning as they contribute to the functioning of the programme.
<p>9. <i>Management and administration</i></p> <p><i>There is effective, transparent and democratic management of communication and information as well as human and material resources; efficient administrative systems support the activities of</i></p>	A priority for SSA in rural contexts under this criterion is communication. Much of the tension and difficulty of rural educational delivery arises from inadequate communications

2003 Criteria for Quality Distance Education in South Africa	Contextual priorities for SSA
<i>the educational provider; the educational provider is financially sound and can make reliable educational provision.</i>	infrastructure and procedures. Secondly, the management of resources is critical; often it is not a question of lack of finance, but insufficiently well-defined budgets that do not control how the resources are deployed. Finally, governance in rural contexts is crucial because of the importance of community involvement in programmes offered and the necessity for sharing scarce resources across different projects.
10. Collaborative relationships	
<i>In the interests of cost-effective provision of education and training, collaborative relationships are formed and collaborative projects are undertaken wherever possible.</i>	The difficulty of employing sufficient appropriately qualified staff in rural areas means that collaborative projects are critical; partnerships with NGOs as well as with other national and international providers of education and training can greatly help in capacity-building of local people. Collaborative relationships with government departments (e.g., for workplace assessment) or local councillors can bolster human capacity in programmes, as well as foster holistic solutions to the problems in rural areas.
11. Quality assurance	
<i>There is an integrated framework at a policy and practice level that informs a clear cycle of planning, implementing, monitoring, reflection and action to ensure that learners' and staff needs as well as the needs of other clients are met.</i>	This criterion is better described as monitoring, evaluation and reflection, which makes it more “friendly” to the full range of programmes in SSA rather than simply the more formal, accredited ones. Monitoring and support become more difficult but also more critical when learners and staff are remote from the centre from which the programme is organised. Although data are often collected, they also need to be analysed and used for the improvement of the programme.
12. Information dissemination	
<i>The education and training services of the educational provider are effectively and accurately promoted in a variety of ways.</i>	Information dissemination and marketing are difficult in rural areas. Because of the shortage of resources and information, many learners

<i>2003 Criteria for Quality Distance Education in South Africa</i>	Contextual priorities for SSA
	are vulnerable to misinformation. Accurate and honest information about scope, requirements and benefits becomes essential.
<i>13. Results</i>	
<i>The educational provider fulfils its mission and the individual programmes achieve valid teaching and learning goals in cost-effective ways that have a positive impact on society and meet the needs of clients and national priorities.</i>	As with all distance education, achieving satisfactory throughput rates in distance education programmes in SSA is an important measure of success. In addition, in rural contexts, “results” are judged not only in terms of the provider, the individual learner or society at large, but in terms of the impact on the particular community in which the programmes are offered.

1. Policy and Planning

Criterion

The educational provider has a clear sense of purpose and direction, which is informed by national priorities as well as by the quality demands of cost-effective educational provision. There are both a rationale and relevant systems for the use of distance education methods to achieve the purpose of the programme for the target learners.

Elements of the Criterion

- 1.1 The mission statement of the educational provider sets out clearly and unambiguously goals and principles, which are fit for its local, national, and international context and which adequately provide for transformational issues.
- 1.2 Policy statements, strategic plans, slogans or mottoes are aligned with the mission, goals and principles of the educational provider.
- 1.3 There are policy statements and evidence of implementation of policies on:
 - programme development;
 - course design;
 - course materials development;
 - services to and responsibilities of learners;
 - learner support, including tutors and mentors;
 - assessment;
 - recognition of prior learning and current competence;
 - where appropriate, integration of workplace learning into the theoretical curriculum (co-operative education);
 - language of teaching and learning, as well as of internal and public communication;
 - human resource strategy;
 - management and administration;
 - finances, fees and payment regulations;
 - quality assurance and review;
 - evaluation and research;
 - admissions and an enrolment management strategy to facilitate access for success;
 - marketing;
 - accreditation;
 - collaboration;
 - export of programmes; and
 - the use of information and communications technology (ICT).
- 1.4 The provider or programme management team can provide a rationale for the use of distance education or electronic learning methods for the delivery of the programme/course to the intended target learners.

- 1.5 Prior to offering programmes of study by distance education, the provider has explicitly designed systems for administering and teaching learners at a distance and has planned for contingencies in order to meet its stated aims in terms of academic quality and standards.
- 1.6 There is a recognition that the use of electronic learning methods is likely to require greater levels of collaboration, both nationally and internationally, and therefore the provider has considered:
 - Selection of an appropriate technical platform for design and delivery
 - Installation of technical infrastructure that is compatible with present or possible future partners
 - A process for the development and/or implementation of shared standards for online content across partners.
- 1.7 There is a published statement of the educational provider's commitment to learners and how this commitment will be measured.
- 1.8 Implementation plans are realistic, both in terms of learning and teaching goals and in terms of financial sustainability, and designed to enable targets to be met.
- 1.9 Policy statements and methods of implementing them are recorded, readily available, and fully understood by members of staff. There are mechanisms to support and monitor staff in the implementation of these policies.
- 1.10 There are monitoring procedures to ensure that all policies are implemented, evaluated and amended as and when necessary.
- 1.11 Equal opportunities are ensured for all learners, staff and other clients.

Policy and planning

The first issue of importance for sub-Saharan Africa is policy and planning around large national programmes. Usually supported by international aid (funding and/or technical assistance) large programmes are launched to meet targeted national needs. It is important that these programmes be based on, and aligned with, regional and local priorities rather than the agenda of international funders and development agencies.

The second issue is that distance education programmes often need considerable support because, in many countries in the region, distance education is regarded as “second class” with the result that there is a resistant attitude and mindset towards it.

Senior managers need assistance in understanding how to properly and effectively use distance education. One of the key ways to accomplish this is through encouraging a conscious integration of the “three-legged distance education pot” whereby the three key pillars (administration and management; institutional support; and materials design, production and delivery) are harmonised and synergetic. Conscious design of distance education systems is necessary in ways that are sensitive to resource constraints and local

conditions. Distance education requires much more thorough planning than face-to-face provision at all stages ranging from learner and programme needs assessment to design, implementation, availability and provision of resources, both human and financial.

Critical success factors

Providers and programmes have a clear sense of purpose and direction, directed by the needs of the country and region they serve, with systems and implementation plans that are suitable for distance education as well as being realistic and sustainable.

Goals

- Programmes have clear goals, which set out the aims of each programme and its operational principles.
- National and/or community structures are encouraged to participate in developing the vision and mission of the programme.
- Goals are based on an analysis of national, community and learner needs.
- The needs analysis is used to assist project planning and design.

Policies

Policy statements include

- access,
- human resource development and capacity-building,
- governance,
- marketing,
- language policy,
- recognition of prior learning,
- accreditation and partnerships.
- Policy and strategic plans comply with regional and local development plans and take national priorities into account.

Planning

To close the policy/practice gap so that learning culminates in action:

- Implementation plans are developed according to a realistic assessment of available resources in the rural area.
- Implementation plans are based on sustainable financial and fee structures.
- Implementation plans are cognisant of both programme development and systems development needs from the start.

Example one: a teacher upgrading programme meeting needs

The teacher upgrading programme, the National Professional Diploma in Education (NPDE) in South Africa, is in line with national priorities as set by the national Department of Education and is well as supported by the unions and the South African Council of Educators. In 2002, over 11,000 teachers enrolled in the NPDE with 17 different providers across the country. The NPDE reaches a target group of fairly elderly, largely rural teachers with outdated qualifications who have up to this point been bypassed by other national initiatives. The teachers can benefit through potential salary improvement and increased opportunities for further study. Motivation from the teachers on this programme is high. For example, one learner on the Limpopo NPDE wrote this piece about the programme:

Whilst in darkness of education
There came a promising light
East of the city of Polokwane Forms were scattered
All over the province

The hungry ones took a sip
A few weeks later followed the stream.
I was head over heels to be one of them
The light came in the name of NPDE
What a relief!

Every time I open the blue and the yellow¹
The burden of being under-qualified
Gets more and more reduced.
Come 2004, come my NPDE
That's my wish every minute.

M.A. Mabasa (University of the North)

Example two: the Kenya School-based Teacher Development Programme

The Kenya School-based Teacher Development Programme exemplifies a number of the critical success factors in the category of policy and planning.

Programme development based on ongoing needs analysis

Throughout the research upon which this report is based, SSA countries consistently emphasised that the success of any DEOL programme is clearly predicated on the extent to which its design and development is based on a considered response to clearly identified and articulated needs of learners. In this respect, the Kenya School-based Teacher Development Programme (described below) is an exemplar, since it was designed and implemented on the basis of a comprehensive national survey that identified the gaps that the programme intended to address.

¹ Blue and yellow are the colours of the first two modules on the programme.

A Kenya national baseline survey (needs analysis) undertaken between 1993 and 1996 showed that the low quality of teaching and learning at the primary school level had led to low enrolment and retention of learners in many primary schools. The survey highlighted the problem of a limited range of pedagogic practices, which provided little opportunity for pupils' interaction for practical activity. As a result of the survey, a pilot project activity was introduced and implemented in 1998. It was entitled Strengthening Primary Education (SPRED), and the programme described in this section, the School-based Teacher Development programme (SbTD) became the follow-up phase to this earlier SPRED initiative. The overall impact of this successful pilot activity was limited to the classroom level, and it was found necessary to design the follow-up phase through the provision of a comprehensive support programme. The SbTD design advocated a school-based model of teacher professional development, whereby the teacher-learners would work through self-study distance education material.

Harnessing the necessary human resources to manage the programme

The Kenya SbTD programme is a large-scale in-service teacher (certificate) training initiative with huge human resource needs. During its implementation so far, it has covered all of the country's 17,500 public primary schools with a combined national enrolment level of 6.2 million pupils. In 2000, the Kenya national gross enrolment ratio for primary schools was 87.7 per cent, with girls' enrolment standing at 50 per cent, in parity with boys.

These figures are bound to increase significantly as a result of the ongoing implementation of the Kenya government's new policy of offering free primary education, which has led to a dramatic increase in the demand for primary education and the consequent demand for trained teachers. Pupil enrolment in all classes has shot up astronomically, precipitating new teaching and learning challenges, which might eventually compromise the quality of education that learners receive. As a result, there is renewed interest in the factors that have contributed to the success of the SbTD programme and how these can be used as a basis for expanding and deepening access in Kenya, or for replicating such success elsewhere within the region.

The SbTD Programme is reportedly one of the largest in-service programmes ever carried out in Africa and has involved thousands of Kenya educators in the management and support of the programme at every level of the system. Support services in turn have contributed to the exceptionally high completion rate of 90 per cent.

The programme has trained 1,200 Teachers Advisory Centre Tutors (TACs) in distance education support methods who have, in turn, provided Key Resource Teachers (KRTs) with a comprehensive range of distance learning support services. Additionally, 1,000 zonal and national education school inspectors have been trained to undertake the monitoring, evaluation and quality assurance aspects of the SbTD implementation. By the end of its implementation cycle, 54,000 teachers will have been reached, comprising 29 per cent of the total primary education level teaching force of 180,860 teachers. Thus, for the first time in the country, teachers from all public schools have been in-serviced,

thereby demonstrating national ability to provide a more equitable system of education to serving teachers without their having to interrupt their work or move from their workplace.

A clear set of programme goals

The success of the SbTD could also be ascribed to a clear set of goals derived from national priorities. These goals are:

- Develop reflective primary school teachers who are willing to challenge their own ideas about teaching and learning. Through the programme, teachers are encouraged to try out different teaching strategies, which are meant to motivate and challenge the pupils
- Develop a cohort (critical mass) of trained teachers, who will be able to undertake and lead school-based professional development within their own subject areas, in their own schools. It is envisaged that through this initiative, all the primary school teachers in Kenya will be subjected to the same training. This, in the long run, should lead to equity in the quality of teaching taking place in all parts of the country, and for all groups, irrespective of their geographical location.

The source paper for the information highlighted here (Kenya Ministry of Education, Science & Technology 2003) concludes that these goals are being met, not only numerically but also in terms of their pedagogical aims:

There is no doubt that the SbTD [programme] has had an important impact on the levels of teacher reading and on professional development and self esteem. The programme has had an important positive effect on teacher morale and self-worth. It is the feeling of teachers that, the five-month programme duration has awakened them, giving them a deeper insight [in] to their profession. With the exposure gained they will have continuous practice and reflection on their experiences.

Example three: effective, realistic and sustainable learner support

An example of implementation plans that are based on a realistic assessment of the resources in rural areas is the learner support system in one of the courses offered by the UNISA Institute for Adult Basic Education.

The Certificate in Adult Basic Education and Training (ABET) is targeted at “anyone who is a trainer or who would like to become a trainer of adults.” The programme is large scale – between 5,000 and 6,000 learners throughout the country – and it is committed to offering regular learner support. To fulfil this obligation, plans had to be made to offer this support in ways that were realistic and sustainable. One option would have been to provide centralised support through a limited number of fairly centralised learning centres, which would provide better opportunities for ongoing training and monitoring of tutors. However, fixed learning centres are costly to manage, and because learners have to travel further to reach the limited number of centres, and tutorials have to be less

regular and probably of longer duration, the costs to the learners are much higher. Therefore, the UNISA ABET programme opted for a decentralised approach in which the learners receive most of their support at 150 decentralised venues. Most of these venues have limited facilities, and there is less control of the regularity of sessions and attendance of tutors and learners. However, the decentralised approach, practised now for successive cohorts (2,500 in the first cohort in 1995 and 4,500 to 5,000 in cohorts since then) have had pass rates of 78 per cent and appear to be both sustainable and effective.

The network of tutors established through the UNISA ABET programme has subsequently been used to deliver basic literacy training to tens of thousands of learners as part of the South African National Literacy Initiative (SANLI). The investment in the initial tutors and the decentralised approach has, in this way, been turned to national advantage.

2. Learners

Criterion

There is up-to-date detailed information about past, present and potential learners. This is used to inform policy and planning of programme development, course design and materials development, learner support, and other relevant aspects of educational provision.
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Elements of the Criterion

2.1 The provider has developed a learner profile that identifies the characteristics and situation of students projected to study through distance education. This profile should include:

- demographic factors – for example, age, gender, geographic location and occupation/employment;
- language profiles including language ability in main language of teaching and learning, language background and multilingual language ability;
- motivation for learning – for example, for career purposes or personal interest;
- educational background/learning experience – for example, prior learning and experience, prior qualifications, experience of distance learning, learning skills and styles, and language background;
- special needs – for example, barriers to learning, physical handicaps or learning difficulties;
- resource factors – for example, financial resources, place of learning, times available for learning, access to electricity, access to media and technologies;
- experience and knowledge of technology; and
- success rates of past and present learners.

- 2.2 The management of information system provides for the tracking of student performance (for example, in assignments, examinations or even attendance at contact sessions) and can be used to identify at-risk students and those students who, though registered, are inactive. It can also be used to determine completion and throughput rates.
 - 2.3 Research into learners and their needs is a high priority and is used to inform all aspects of policy.
 - 2.4 Learner information is used to design programmes, courses, materials, learner support, and counselling services that are flexible and learner-centred.
 - 2.5 Mechanisms are in place for promoting access to learners from marginalised groups, inter alia, through the provision of academic development programmes.
 - 2.6 Tutors have access to information about their learners and contribute to the collection of such information.
 - 2.7 Systems exist to maintain the confidentiality of information about learners.
 - 2.8 Special needs (for example, physical handicaps) are considered in the design of course materials, assessment arrangements and communication with tutors.
 - 2.9 The educational provider is aware of and caters for learners with learning difficulties.
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Target Audience

Analysis of the needs of the target audience and collection, maintenance and use of learner information is critical in all distance education, but is particularly complex in rural contexts in multilingual and multicultural sub-Saharan Africa. There is often an assumption that rural people are homogeneous. It is essential that providers understand that the term “rural” covers a wide range of economic, social, political, cultural and educational differences to prevent exclusions arising from factors relating to gender and traditional and cultural practices. A critical issue in rural areas is language. It must not be assumed that in a particular rural area there will be one local language. In KwaZulu-Natal in South Africa this might be the case, but in Limpopo, in the same country, it may well not be. However, the limited usage of spoken and written English in rural areas means that some form of support has to be made available at all learning levels if the language of learning is English, as is often the case in “Anglophone” SSA.

If learner profiles are not known, the programme and course cannot be designed with needs, knowledge and experience of the learners in mind. This results in unnecessary dropout rates. Another reason for dropout occurring is that inactive or at-risk students are not identified, usually because the information management systems in distance education programmes in the region are inadequate.

Critical success factors

A group or groups of people have been identified as the target audience and relevant information is collected about learners and used to inform the design, implementation, administration and revision of the programme.

The following learner information is collected and used to inform the design, implementation, administration and revision of the programme:

- Age, gender, geographic location and occupation of learners
- The language ability of learners in the main language of teaching and learning, language background and multilingual language ability of learners.
- The reason why the learner is in the programme (e.g., career purposes, community upliftment or personal interest)
- Learners' qualifications and experience, learning skills and style
- Learners' achievements, which includes formal assessments, participation in workshops, and level of engagement with course materials using all media in the programme, as well as how past learners have been able to use their learning from the programme
- Learning site, times available for learning access to electricity access to media and technologies and financial resources for purchase of additional materials
- Learners' physical handicaps or learning difficulties
- The management of information systems provides for the tracking of student performance (e.g., in assignments, examinations or even attendance at contact sessions) and can be used to identify at-risk students and those students who, though registered, are inactive.
- Programmes may have to build the capacity of different target audiences who play diverse roles and have dissimilar responsibilities within communities. If so, their learning needs may have to be dealt with differently in terms of the content of the programme and its dissemination.

Example one: gender issues in development programmes

In a study done for Mvula Trust in Johannesburg, "The role of women in community water and sanitation supply projects" (Mvula Trust 1999), it is clear that in the organisation of such projects and in the design of training programmes, gender relations play a major role.

Although women are traditionally responsible for water bearing, have more knowledge about water, and more women than men are involved in the water projects, "women [are] not given the opportunity to take on responsibility for either the operation or maintenance of the water supply system." Further, there are more men than women on the water committees because "it is a male duty to liaise with the community...men have more authority and respect, and...have the required public speaking skills." As well, Mvula found that having more women than men on the water committee would not increase

women's participation because men have access to the finances and control the distribution of financial resources.

When considering women's involvement both on water committees and in training for water committees, a number of constraints had to be considered:

- Men regard such involvement as dangerous – possibly leading to increased chance of infidelity.
- Women are financially dependent and need their husband's permission to participate.
- Women do not have the same freedom of movement as their male counterparts.
- Women have severe time constraints because of their onerous family responsibilities.

It is clear that the training needs of women and men on the water and sanitation projects will be very different. In terms of the responsiveness of women to training and its impact on their empowerment, Mvula Trust determined the following:

Training was accessible to both men and women on the water committees and even when support structures (such as childcare facilities) were not set up to facilitate attendance by women, female attendance levels were high. The training given was project-specific in most cases, which contributed to the effective administration of the water projects. However, this did not always substantially affect empowerment levels of the women in the community.

Education and training were found to be important in contributing to the levels of confidence and competence of the women on the water committee, but were not completely successful in overcoming entrenched notions of gender hierarchy or self-confidence problems on the part of the women. (Mvula Trust 1999)

This project illustrates Mvula Trust's general finding that access to learning opportunities, the learning process and subsequent changes in behaviour can be affected by the complex interrelationship between women and men and adults and children arising from their differentiated cultural, social and economic roles.

Example two: catering for different audiences in the same programme

It is not only in gender-related issues that the needs of differing groups in the target audience need to be identified. In their water and sanitation projects, Mvula Trust does a needs analysis for each of the groups that need to be trained to ensure that the projects are a success. For example:

- **Local councillors** require knowledge of laws and regulations governing water provision and technical knowledge regulating water and sanitation provision.
- **Water committees** have to understand the basic elements of business and project management and how they can acquire services from technical experts.
- **Communities** must have knowledge of how to use water efficiently and of the importance of contributing to maintaining the system.

- **Other groups** have vested interests in health and sanitation issues. For example, members of school governing bodies need information on how to establish and maintain satisfactory services.

The needs of each of these groups need to be met in different ways in programmes that are designed.

Example three: inability to determine active students

In South Africa, the national Department of Education has realised that a number of distance education programmes are using registration numbers to request the government subsidy for programmes. However, students can be registered but dormant in every other way and not costing the provider any money to service. If students are almost entirely inactive, request for financial assistance in the form of subsidy for those students is unjustified. There need to be ways to determine whether or not they are active; for example, by submission of assignments or participation in contact sessions.

3. Programme Development

Criterion

Programmes are flexible and designed with national needs as well as the needs of prospective learners and employers in mind; their form and structure encourage access and are responsive to changing environments; learning and assessment methods are appropriate to the purpose and outcomes of the programmes.
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Elements of the Criterion

Programme planning

- 3.1 The programme is developed in terms of a needs analysis based on an audit of existing courses and programmes, market research, liaison (where appropriate) with industry and professions, national and regional priorities, and the needs of the learners.
- 3.2 The programme is part of the provider's mission and plans.
- 3.3 For each programme, there is a publicly accessible description of:
 - the qualification to which the programme leads,
 - the admission requirements,
 - purpose and outcomes,
 - target learners,
 - teaching and learning strategies (including, where appropriate, workplace learning),
 - features of the learning environment and resources,
 - assessment strategy,
 - courses or modules in the programme, and,

- where appropriate, accreditation arrangements and articulation with other programmes offered by the educational provider, in the workplace or other educational providers.

3.4 There is a careful analysis of the most appropriate technologies to support

- The provision of course materials to learners
- Other teaching and learning processes
- Management and administration of the programme.

The selection of technologies is based on the needs, resources and capabilities of the learners and the provider, and the purposes of the programmes on offer.

3.5 Wherever possible, courses are used in more than one programme.

3.6 Human resource planning is an integral part of programme development.

3.7 Programme planning and budgeting are aligned, with potential income clearly identified, and appropriate levels of resource set aside for course design and development, for administrative systems and for supporting learners.

Programme approval

3.8 Procedures for the approval of programmes meet the requirements of the relevant bodies, but are not cumbersome and allow for and encourage innovation and flexibility.

3.9 Where programmes are exported, procedures are established for reviewing legal programme approval requirements and also requirements under local law in respect of relevant matters including consumer protection, copyright, employment, packaging and postal despatch.

Programme curriculum

3.10 The outcomes, content, teaching and learning strategies and assessment methods in the programme are aligned and appropriate for the level and purpose of the programme.

3.11 In the case of professional and vocational programmes, work-based learning forms an integral part of the curriculum, and, where appropriate, placement in a work-based environment is an essential component of the programme.

3.12 The various courses of the programme are integrated.

3.13 To facilitate conceptual pathways through the programme, due attention is paid to the appropriate sequencing of modules/courses in a programme, and to the management of options.

Admissions and learner support

3.14 To facilitate access, entry requirements for the programme are as open as possible, and include recognition of prior learning and experience.

- 3.15 Where entry is open, care is taken to provide sufficient academic support to learners who may be under-prepared. This may be by the provision of access or bridging courses, additional units within existing courses or increased face-to-face support.
- 3.16 Numbers of learners enrolled in a programme do not exceed the capacity of the staff and the administrative infrastructure to provide for learner support and assessment needs in terms of the criteria in this document.
- 3.17 Care is taken that learners admitted to programmes, which require the use of technology, have sufficient access to that technology to make it possible for them to succeed in the programme.

Accreditation, articulation and flexibility

- 3.18 Wherever possible, programmes allow for flexible exit points – learners do not always have to complete a fixed set of courses over a lengthy period of time.
- 3.19 Learners are made aware of credit requirements of the programme and the possibilities for transfer to other programmes in the same or other educational providers.
- 3.20 Where appropriate, assessment is linked to accreditation and fulfils the requirements of external quality assurance bodies.

Quality assurance

- 3.21 Clear and effective procedures are in place (including internal and external peer review) to monitor and evaluate programmes on a regular basis.
- 3.22 Review findings are disseminated appropriately and utilised for staff development, curriculum improvement and increasing learner access.
- 3.23 Should a decision be taken to discontinue the programme, due attention is given to meeting the provider's commitments to the learners registered in the programme.

Programme Development

In SSA, particularly in rural areas, developing programmes based on national research as well as the needs of the specific target group is important. Secondly, “flexibility” may also be interpreted in different ways in rural contexts (e.g., flexibility to accommodate social, traditional and cultural factors). Finally, responsiveness to local needs may make it necessary to allow the programme to develop incrementally, instead of according to a complete plan developed before implementation.

Critical success factors

Programmes are based on research and designed to accommodate the needs of learners. The form and structure of the programme encourage access and are responsive to barriers caused by cultural, social and gender-related beliefs, values and practices. Programme development in rural contexts is best done in an incremental way that allows for gradual development and expansion within the context of limited resources.

- When deciding on requirements for access, providers take note of social, traditional and cultural factors, available communication systems and the ways in which communities make use of various media in their day-to-day activities.
- Entry-level requirements are as open as possible and include structured recognition of prior learning.
- The programme is based on the findings of a needs analysis that covers an examination of the needs of the learner and the community.
- The needs analysis includes an exploration of an individual's personal, professional and other work-related needs, needs relating to the development of the community, available infrastructure and facilities and services, existing programmes, and possibilities of liaising with appropriate partners.
- The timing of programmes takes note of cultural (e.g., initiation) and economic practices (e.g., planting and harvesting seasons in communities engaged in farming).
- Formal accredited programmes and less formal programmes work together to meet the needs of individuals and the community in rural contexts.

Example one: an incremental approach to programme development

The University of Fort Hare's Distance Education Project in the Eastern Cape of South Africa adopted an incremental approach in its development of a Bachelor of Primary Education for the upgrading of teachers. The university began to consider moving into distance education provision in 1995, and in June 1995 collaborated in a feasibility study, led by Basil Moore who was seconded for the purpose, with the Eastern Cape Department of Education as well as the University of South Australia. This feasibility study yielded expressions of interest from over 5,000 teachers (Moore et al. 1995). It also included a somewhat idealistic deployment of technology and learning resources at Regional Teachers' Centres and the District Education Resource Centres in the Eastern Cape, envisaging students studying library texts and using fax and e-mail for assignment submission. The director and the academic co-ordinators, when faced with the realities of budget, time and expertise, had to adopt less ambitious plans. Instead, they implemented an incremental, low-tech, approach that allowed for gradual development and expansion within the context of limited resources. For example the approach to course design was a consultative and responsive one, which included piloting of content in schools. One of the academic co-ordinators described the programme development process in the early days as "invent things as you go, and solve things as they immediately hit you."

The general profile of the University of Fort Hare's Bachelor of Primary Education programme is similar to that of the Kenyan School-based Teacher Development

Programme, but on a much smaller scale. Similar to Fort Hare's approach and strategy, the Kenya SbTD Programme adopted an incremental approach in its development. The built-in capacity-building components of the SbTD programme were in response to the following:

- Findings and recommendations of the national baseline survey (SPRED) of 1993–1996
- Outcomes of the SPRED initiative
- Limited impact of teaching and learning at the classroom level
- Consideration of learners' opportunity costs
- Lack of mainstream education training systems for capacity-building

Example two: A programme based on national research and a needs analysis done with the target group

The Further Diploma in Education (FDE), a flexible learning programme for English, Maths and Science teachers offered by the University of the Witwatersrand in South Africa from 1996 to 2002, is an example of a programme with clear goals jointly developed by the curriculum development team both in response to the findings of the National Teacher Audit of 1995, and after research done amongst teachers themselves.

The goals of the programme were:

- The development in schools of quality learning and teaching relevant to a changing South Africa
- The extension of teachers' educational knowledge, subject knowledge, and subject teaching knowledge and skills
- The development of teachers as competent, reflective professionals within their community
- The provision of opportunities for teachers to engage in classroom and school-based research
- The enabling and fostering of collegial and co-operative ways of working among teachers
- The opening of career paths for teachers through professional development and possible access to further degrees and diplomas

The details of the content of the programme were partly derived from a study done amongst the teachers themselves. For example, in the English language specialisation of the FDE, a course on teaching grammar was included because teachers specifically said they wished to understand English grammar and be able to teach it.

Example three: learning for all

A programme that supports the principle of learning for all and models the kind of flexibility that is important in sub-Saharan Africa, particularly in rural areas, is the Adult Basic Education and Training programme run at Sinethezekile Ezibukweni Combined School in Jozini, South Africa. The main aim of the programme is to provide adults with

literacy and numeracy skills. The spin-off is that the skills improve learners' chances of employment; and they can help their children with homework.

Learners are placed in different levels according to what they say was their last grade of learning. If they are unable to say then they write a test to determine their grade. The test is set by the teachers and is based on the kind of test they give to their students at school. The programme is funded and certified by the Department of Education.

Example four: accredited and non-accredited programmes working together

In examining the programmes offered in Jozini and KwaZulu-Natal, the differences between accredited and non-accredited programmes became clear, as did the importance of the two kinds of programmes working together.

Accredited and non-accredited programmes can be distinguished in a range of ways. Accredited programmes, like the Promat Diploma in Education for teachers, or Further Diploma in Education (Technology), are well-structured with formal assessment processes, providing learners with certification and often charting career pathways for them. However, it is often difficult to ascertain the impact of these interventions on actual practice, as there is usually no follow-up once the programme is completed, and the focus on the individual ignores other environmental factors, which have an impact on practice and delivery. On the other hand, non-accredited programmes like those offered according to the needs of various schools rather than of individual teachers through Jozini Effective Schools Programme (workshops or short courses run by NGOs such as READ or the Molteno project), are not necessarily well structured, do not have rigorous assessment strategies, offer no certification and generally do not suggest career pathways. However, such interventions often have the advantage of a more holistic, systemic vision and bring in a wider range of expertise to address a much wider range of issues.

The view that emerges from the Jozini research is that both accredited and non-accredited programmes are essential and there needs to be a symbiotic relationship between them. If we are to address the needs of the community as a whole, we need to engage with the community as a whole and create a community-wide vision driven by community-based structures and interests. More informal approaches can be effective in addressing systemic issues and challenges, while accredited programmes focusing on individuals offer opportunities to address personal esteem and self-actualisation needs.

Should there be no co-ordination between the two, however, it is possible that one approach would end up undermining the other. For instance, an accredited teacher programme targeted at an individual teacher may call for more group work to be implemented in the classroom, but the teacher may be prevented from implementing this because the principal opposes the approach and has not been part of the design of the programme which advocates it. On the other hand, a whole school or whole community-development approach can lose its way in a myriad of interesting possibilities and fail to address the needs of either the broader community or of the individual. In addition,

although it encourages extrinsic rather than intrinsic motivation, the discipline imposed by accreditation and structured assessment can get learners going in ways that less formal learning programmes may not.

4. Course Design

Criterion

The course curriculum is well researched, with aims and learning outcomes appropriate to the level of study; content, teaching and learning and assessment methods facilitate the achievement of the aims and learning outcomes; there is an identified process of development and evaluation of courses.

Elements of the Criterion

Course planning

- 4.1 The course is designed with national needs as well as the needs of prospective learners and employers in mind.
- 4.2 The elements of the course (see 4.3 and 4.4 below) and the relationships between them are consciously planned.
- 4.3 For each course, there is a publicly accessible and learner-friendly description of the aims and learning outcomes; entry-level skills, knowledge and experience; credit rating and/or notional hours of learning; target learners; teaching and learning strategies; content outline; items in the learning package (including elements such as study guides, textbooks, tutorial letters, audiotapes and videotapes and so on); assessment strategy; and a year plan containing key dates for learners.
- 4.4 Choice of media and technology is justified in the light of the aims of the course, required learning outcomes, learner needs and capacity to access and use the technologies, the physical features of the teaching sites and available facilities and services.
- 4.5 There is a stated language policy for the course which is based on the national language policy, language profiles of learners, career context and curriculum. The policy is implemented in course materials, assessment and learner support.
- 4.6 The list of courses offered by an educational provider is limited to a number that allows for quality investment in course design and development in the context of budgetary limitations. (Quality is defined by the criteria in this document.)

Course curriculum

- 4.7 The amount and complexity of work required to complete the course merits the credits which it has been allocated. This also applies to the assessment for recognition of prior learning and experience.
- 4.8 The course is developed with the needs, knowledge and experience of the target learners in mind.

- 4.9 Where a course is imported or exported, account is taken of the needs of local contexts, and, where necessary, the course is adapted accordingly (for example, by the inclusion of local case studies or a glossary of terms).
- 4.10 Content, teaching and learning strategies and assessment are carefully structured to facilitate the achievement of the learning outcomes.
- 4.11 Various forms of learner support are built into the design of the course.
- 4.12 Teaching, learning and assessment activities encourage critical thinking and independent learning.
- 4.13 The teaching and learning strategies of the course acknowledge learners' existing knowledge and experience, and provide opportunities for guided integration of new knowledge.
- 4.14 Where appropriate, experiential learning opportunities are designed into the course. There are suitable methods of recording and assessing this (such as portfolios, logbooks, project reports, student interviews, or reports from the mentor).

Quality assurance

- 4.15 The educational provider requires relevant competence of authors, consultants, and others that are brought into the course design and development process.
- 4.16 The educational provider gives authors, consultant, and others involved in the course design and development process necessary guidance and training regarding aspects of distance education in order to assure quality in their work.
- 4.17 An appropriate infrastructure exists within the educational provider to administer the range of elements of the course efficiently.
- 4.18 There is a timetable for the regular revision and updating of courses.

Course Design

Although biased towards formal and accredited programmes, the elements of this criterion are fundamental to sound course design in whatever context.

A common problem in courses in the region is that there is little attempt made to explain the different elements of the course and provide learners with a guide to the different components of the course material. Learners are not even advised about the sequence in which they should study the courses on the programme. Sometimes learners receive incomplete sets of course materials, or receive them in the incorrect order, or receive them too late to make use of them for the purposes of assessment. To remedy these problems, it is necessary to encourage providers to develop detailed course guides to ensure that the students know what materials they need to complete the course and to deliver these materials in a timely fashion.

Increasingly critical in rural contexts is the choice of suitable media and technology for course delivery. The assumption is often made that for under-resourced areas, print-based materials are the only alternative. This may not be the case. Because print-based materials tend to be in English, they are often not suitable, whereas much success has been achieved using local languages on the radio. A number of recently established non-formal education programmes in South Africa and other countries have made extensive use of radio, and evaluations have indicated that it is effective in providing topical programmes and reaching large numbers of learners rapidly. The impact of the radio programmes was greater when used with other text-based materials, such as posters and comics.

Critical success factors

Learning materials, teaching and learning strategies, the choice of media and technology, learner support systems, tutor/facilitator support and assessment methods are appropriate to the aims and purposes of the programme and the needs of the learners. They are well-organised to facilitate ease of access.
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- Choice of media and technology are justified in the light of the aims of the course, required learning outcomes, learner needs and capacity to access and use the technologies, the physical features of the teaching sites and available facilities and services.
- Use of different types of technology must take into account the learners' context, resources, level of ability and experience in the technology and to what level they can learn independently or take responsibility for their own learning needs.
- Different technologies are more or less effective for different purposes and a clear understanding of their potential must underlie their development and use in educational programmes
- It is understood that technology cannot replace face-to-face interaction, particularly at the basic level.
- Care is taken to ensure that learners and facilitators are adequately trained in the use of the technology.
- Media used must be able to respond quickly to changing circumstances.
- Access to supplementary material and complementary programmes is readily available in appropriate media.

Example one: access to technology

In a course to which the use of different media and/or ICT is central, it is essential that learners have access to the technology regularly and at times that suit them. This fundamental point is often overlooked.

In an evaluation of teacher take-up of a programme which is meant to help teachers use technology to enhance teaching,² it was found that some teachers had not used a computer at all during the first year of the programme. In an interview, one of these teachers gave this reason: she has a family and can only get to her lesson preparation after supper, but she has no computer at home.

For others on the programme, there have been other difficulties with the basic course requirement: connection to the Internet. Several of the 20 schools in the sample, despite being bona fide participants in the project, have not in the 12 months been able to organise the donated computers to be connected to the Internet.

The Digital Educators Enhancement Project (DEEP) has taken both of these issues seriously. DEEP is funded by the Department for International Development (DFID), UK, and operates in partnership with the University of Fort Hare Eastern Cape and the Programme Planning and Monitoring Unit of the Ministry of Education, Cairo, Egypt. The purpose is to investigate the ways in which teachers can use ICT to improve teaching and learning in numeracy and literacy. The issue of accessibility is addressed by providing each learner in the programme with the following:

- A short study guide
- 10 Web mediated professional development activities
- Activity cards providing routeways to the deep resources mapped against educator and learner outcomes
- Educator and learner diaries
- A portfolio folder
- Additional electronic resources

Various topics are used to provide a unifying project theme. The resources incorporate classroom-focused case studies of the way ICT can be used to develop a variety of subject concepts. In one theme, “endangered animals,” teachers are introduced to a range of classroom activities to do with their learners, graduating in difficulty from simple word processing Web research tasks focusing on local animal species to e-mailing research findings to learners in other schools. An introductory face-to-face workshop for teachers require project pairs to develop and to consolidate a relationship with each other, working together on a variety of these curriculum-focused activities. Teachers are also encouraged to operate in regionally based cluster groups on a range of presentations throughout the training.

The South African project partners had no computer access prior to the project, so Microsoft South Africa’s division of social responsibility has sponsored a single MERCER laptop, manufactured in South Africa for each school. Every project teacher also has a 206 MHz processor and a hand held PC/digital camera funded by the research

² This information is drawn from an as-yet unpublished report of a SAIDE project funded by the Netherlands Development and Cooperation Agency. The report will be on research and development of online curriculum resources for school education in South Africa.

project in partnership with Packard. This facilitates multimedia professional development. More recently, teachers have been provided with a modem, combined printer, scanner and photocopier together with a small budget for connectivity, ink and paper. The ICT equipment was introduced gradually to avoid “technology overload” as well as to encourage collaborative models of learning.

Example two: a range of technologies for the training of teachers

Another solution to the difficulty of access to technology for teachers in rural areas is the Multi Media Rural Initiative (MMRI), a collaborative teacher education initiative involving Multichoice (formerly known as Shoma Education Foundation), the Media in Education Trust (MieT) and the provincial Departments of Education in South Africa. In addition to using a range of technologies from pen and paper to computer networking, MMRI has an interesting course design.

At fully equipped local centres, teachers come to weekly contact sessions. In each two-and-a-half hour session, teachers go to three “rooms.” In the first room, teachers watch a video, which lasts about 10 to 12 minutes and is focused on a particular theme related to the government’s new curriculum. Each video ends with a probing question that the teachers are to discuss for about 20 minutes with guidance from facilitators trained by MieT. In the second room, teachers engage in computer-based learning designed to reinforce the content shown in the video. Teachers work individually for approximately 45 minutes on the computers, reading texts, watching digitised video and audio clips, answering questions and completing exercises. The objectives of the computer-based programme are to develop teachers’ computer literacy, to enhance their English language reading and writing skills and to convey academic content knowledge and teaching strategies emphasised in the new curriculum. In the third room, teachers work in small groups for 45 minutes to discuss a weekly theme or topic and prepare lesson plans that they can use in their classrooms. At this point they all receive a printed copy which summarises what they have learnt in the session.

Example three: the importance of facilitating on-line discussions

The master’s degree in Early Childhood Intervention run by the Centre for Augmentative and Alternative Communication (CAAC) at the University of Pretoria provides a good example of the need for human direction and mediation in the use of technology. Even though this is a very high-level programme, it was recognised that participants would need orientation to the use of the technology as well as ongoing direction in online discussions.

In the one-week contact session at the beginning of the programme, participants receive training in the use of the software for online discussions. During the course of the year, the lecturer schedules two general class discussions for each module: one at the beginning and one at the end of the module. The discussions are initiated by the lecturer through the posing of problems that students need to solve by references to their readings and also by drawing on their work experiences. The lecturer/facilitator has a constant presence to ensure that the discussions achieve their aim. At the end of the session the lecturer/facilitator also summarises the discussion for the learners to ensure that learning

has taken place. In addition students are allocated to groups and each group has to schedule at least two online group discussions. Again a group leader is chosen to facilitate the discussion and to submit at least one group discussion for appraisal.

Example four: flexible use of technology in West African countries

Distance education strategies, particularly the use of radio and telelearning, are being used to contribute to the solution of educational problems in West African countries. When designing educational programmes, it is important as far as possible to use technology that is already working in the country, as well as available sites, facilities and services. In the highly rural country of Mali, there are about 144 radio stations, which is “an important resource given the size of the country and the poor road and telecommunication infrastructure” (Allais 2003). There are plans to use radio both for formal programmes in teacher training, as well as for community learning purposes to reach large numbers of people widely distributed throughout the country.

The second example from Mali is the use of telelearning for highly specialised and individualised medical training in a country in which there is a dire shortage of training facilities. Allais (2003) explains:

The medical school does not have cadavers, or capacity to store and maintain them. Senior medical students have contact with a Swiss university through a video conferencing link. It is hoped that telelearning could be used to expose students visually to understanding anatomy. The importance of ICTs in spreading medical information was made clear to me by a doctor who, as the only thoracic surgeon in Mali, feels that he would be able to save lives if he could communicate with other surgeons, and instruct them in relatively routine procedures, instead of sending patients on long journeys to the hospital in Bamako. The same doctor saved a life himself by communicating during an operation with a colleague in Geneva, through a digital photograph and description of problems that he was encountering.

This example is interesting in that it illustrates a very responsive use of technology – it can be adapted quickly and used as the need arises.

By contrast, it appears that Senegal is opting for a rather inflexible approach to the use of distance education strategies. Co-ordinated by the Centre of Distance Education, a range of courses is offered through the Global Distance Education Network, but the courses are foreign (from the World Bank and various French institutions), not contextualised for Senegal. In addition, as Allais (2003) points out, there are limitations to the type of technology that is preferred:

The understanding of distance education of this centre seems to be currently limited to video conferencing. This is a pity, both because of the cost implications of this type of system, and because video conferencing does not usually lead to very active engagement of learners.

5. Course Materials

Criterion

The content, assessment, and teaching and learning approaches in the course materials support the aims and learning outcomes; the materials are accessibly presented; they teach in a coherent way that engages the learners; there is an identified process of development and evaluation of course materials.

Elements of the Criterion

Materials development planning

- 5.1 The development of course material is based on a project plan which describes, for example, finances and other resources, the delegation of responsibility among those involved, and an adequate time schedule for the work.
- 5.2 If existing course material is used for a particular course, its suitability is evaluated in terms of required learning outcomes, the appropriateness of the teaching and learning approach, and its relevance for the target learners.
- 5.3 If existing course material is used for a particular course, there is proper acknowledgement of the source of all quotations and no breach of local or international copyright laws.
- 5.4 While the provider holds copyright for course materials developed by employed or contracted staff, the individual author's intellectual property rights are also respected.

Quality course materials

- 5.5 Materials are developed and reviewed in terms of the following criteria:
 - 5.5.1 There are clearly laid out aims and learning outcomes, and an explicit indication of study time (notional study hours per section of the material) which allow learners to adopt sensible study plans.
 - 5.5.2 The content and teaching approach support learners in achieving the learning outcomes.
 - 5.5.3 Learner friendly introductions, linking and summarising passages motivate the learners and provide coherence to the materials.
 - 5.5.4 The content of the course is accurate, up-to-date, relevant to aims and outcomes, free of discrimination, and reflects awareness of the multilingual and multicultural reality of South African society.
 - 5.5.5 The language level of the materials is appropriate for the target learners and the materials assist learners with the particular difficulties that learning-through-reading and learning at a distance requires.

- 5.5.6 Care is taken to understand the contexts in which learners live and work, as well as their prior knowledge and experience. This knowledge is used in the design of the materials.
 - 5.5.7 Active learning and teaching approaches are used to engage learners intellectually and practically, and cater for individual needs.
 - 5.5.8 Content is presented in the form of an unfolding argument, rather than discrete bits of information that have no obvious connection.
 - 5.5.9 The various elements of the course materials and different media are integrated, and the integration is clearly sign-posted.
 - 5.5.10 The course materials are designed in an accessible way. Access devices (such as contents pages, headings), graphic presentation of information, and layout facilitate use by the target learners.
 - 5.5.11 The overall technical quality of the materials facilitates learner use.
- 5.6 In Web-based/online courses, the following additional criteria apply:
- 5.6.1 The service is speedy and reliable: it is easy to connect to the site, and the site loads quickly with minimum number of crashed sessions.
 - 5.6.2 Pages and text are designed for consistency, readability and attractiveness.
 - 5.6.3 The site is easily navigable, has a site map with clearly marked links, and the different elements integrate seamlessly with each other.
 - 5.6.4 The site is up to date, with minimum technical faults, and continuously under development.
 - 5.6.5 The site clearly displays its institutional links and acknowledges sources of material used.
 - 5.6.6 Support in the use of the various functions on the site is provided both in the site itself and from external technical assistance.
 - 5.6.7 The site encourages interactions with other learners as well as with the tutor/mentor.

Quality assurance

- 5.7 The materials development plan includes provision for evaluation during the developmental process in the form of critical commenting, developmental testing, or piloting.
 - 5.8 The materials are periodically reviewed in the light of ongoing feedback from learners and tutors and advances in knowledge and research.
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Course materials

In many SSA contexts inherited from colonial systems, rote learning and authoritarian views of knowledge have been the norm, and so particular attention needs to be paid to the way knowledge is presented. The perspective we wish to promote is that knowledge should be presented as open and constructed in contexts, rather than merely received in a fixed form from authorities. Learners should be given opportunities to interrogate what they learn, and their prior knowledge and experience should be valued and used in the development of new ideas and practices. Frequent opportunities and motivation for application of knowledge and skills in the workplace, where relevant, should be provided, but this should be done in a reflective rather than mechanical way.

Relatively few materials in SSA currently are developed along the lines described above. It becomes crucial, therefore, to develop ways of sharing the scarce resources across providers, and using them to build capacity of tutors as well as learners. Care does need to be taken, however, to contextualise these materials to meet local needs, and ensuring that if materials are used from a variety of sources in a single programme, there is a coherent approach.

An additional widespread problem in the region is that materials are frequently outdated because there are no clear systems for revision. Courses should be reviewed every three years with a view to updating, and evaluated every eight to 10 years with a view to discontinuance or major revision.

The lack of proper planning results, in some countries, in learners being enrolled before course materials are ready. This effectively means that learning has not started as, in distance education, the main means for communication of the curriculum is the materials.

Critical success factors

The content and teaching and learning approaches in the materials support the aims and learning outcomes and encourage critical engagement; the materials are accessibly presented for a rural context; there is an identified process of selection, development/adaptation and evaluation of materials.
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The following points are particularly important for rural contexts:

- Providers make an effort to understand the contexts in which learners live and work and draw on this knowledge in designing the course.
- Course materials reflect an awareness of the social, economic and cultural context and the dominant language/s used in the rural area.
- Content is presented clearly and systematically, and in ways that encourage interaction and critical thinking.
- Learners' prior knowledge and experience is valued and used in the development of new ideas and practices.

- The language used is accessible to the learners. Where programmes are in English, language support is provided.
- User-friendly accessible course materials support learners, especially those with low levels of literacy.
- There is an identified process of selection, development/adaptation and evaluation of materials.

Example One: contextually relevant course materials

The University of Fort Hare’s efforts to contextualise the courses and course materials in the Bachelor of Primary Education for in-service teachers have been remarkable. Firstly, an effort has been made to break the dominance of English in the materials and the programme by using selected isiXhosa words. For example, the tutors are called *abakhwezeli* (“those who keep the fire burning”) to describe their role as facilitators who assist the teacher-learners to understand and engage with the materials. The materials, organised into small booklets of approximately 40 notional learning hours, are called *imithamo* (“bite-sized chunks”).

Secondly, there are frequent photographs of classrooms with teachers and learners doing the activities that are referred to in the text. This, together with the fact that the key activities call for classroom and/or school-based work, motivates the teachers because connections are made between their daily work and their studies.

Thirdly, there are numerous attempts to use the rural contexts to build concepts, thus modelling a process teachers could use with their own learners. For example, one of the *imithamo* entitled *What’s the difference that makes a difference?* asks teachers to explore how teachers and schools can help create resilient people who make a difference in the world: just as certain local Eastern Cape plants (such as the aloe and the euphorbia) can survive despite difficulties, certain people are resilient and can succeed despite adversity. The value is conveyed through a concept, and the metaphor of the Eastern Cape plants is not only a metaphor but also an object of biological study.

In the first activity in the module, teachers are asked to identify and interview individuals who they think have demonstrated considerable resilience in their lives. When they come to the next contact session, teachers talk about their interviewees and share real stories from their own communities, usually about teachers or parents and their role in making resilient people. This leads quite naturally to discussions about the kinds of behaviours teachers and parents can demonstrate that can help their learners in difficult situations. In other words, in an indirect and highly contextualised way, the module helps teachers identify and explore role models for teaching and parenting.

Example two: language and media issues in community-based programmes

The Sustainable Energy, Environment Development Trust (SEED), based at the University of Cape Town, works with rural communities in Limpopo and Eastern Cape to train these communities on how to help communities identify their energy sources,

such as paraffin and electricity, and cheap and safe ways of accessing and using those sources.

SEED identified a need to develop a resource pack of materials to cover aspects such as:

- Organisational/structural issues such as how to form energy committees and energy co-operatives
- Technical issues relating to electrification and electrification plans for villages
- Information on other parties essential to energy provision

The SAIDE evaluation of the resource pack of print-based and CD-ROM materials gave some insights into the kinds of materials that are effective in rural contexts:

- Even though people involved in community-based rural development initiatives are likely to be adults and have educational levels that can enable them to read and write, they are likely to prefer spoken messages over written. For example, in the CD they liked video clips more than written text.
- Most people would prefer that the messages be communicated in their own local languages.
- Radio remains the key media to which most rural people have access.

Example three: collaborative materials development in the SADC region

The SADC Environmental Education Course Developers' Network, which operates under the auspices of the SADC Regional Environmental Education Support Project, adopts an approach to materials development which facilitates the sharing of resources while at the same time emphasising the importance of contextualisation of shared resources.

The project as a whole aims to “enable networking partners, at all levels, to strengthen environmental educational processes for equitable and sustainable development in the SADC region, through improved networking, resource materials production and increased training capacity” (Lotz 1999).

For materials development, the project works has developed a flexible course framework consisting of four key themes:

- The Environment: A Crisis and Response
- Environmental Education as a Response to the Environmental Crisis
- Environmental Education Methods and Processes
- Curriculum, Programme and Resource Development

Although there are a number of generic resources that have been developed on these themes, the course developers in the region need to contextualise them and incorporate suitable work-related activities.

In April 2003, SAIDE ran a workshop for course developers in the Network which aimed at giving guided practice to participants in developing contextually relevant materials. The following key questions were posed and answered in practical ways in the workshop:

- What does a good environmental educator need to know and do?
- What are the key features of appropriate environmental education course materials?
- Who are the course materials meant for (the targeted learners), and what implications does this have for the content, design and delivery of the materials?
- How can environmental education course materials be made relevant to learners' contexts?
- How will the course materials be used and with what impact and implications?

One of the guidelines that it was agreed should underpin the development of course materials was the following:

Course materials should contain contextually relevant examples and case studies that adequately reflect the issues that learners have to grapple with. Activities in the text should focus learners' attention on practical realities and should encourage development of appropriate knowledge and skills which will equip learners with competencies to engage with environmental issues and challenges in a reflective, responsive and transformative manner (Mwagiru 2003).

6. Assessment

Criterion

Assessment is an essential feature of the teaching and learning process, is properly managed, and meets the requirements of accreditation bodies and employers.

Elements of the Criterion

Assessment design

- 6.1 Assessment is recognised as a key motivator of learning and an integral part of the teaching and learning process. It is used to inform teaching practice and improve the curriculum.
- 6.2 Assessment information (including learning outcomes, assessment criteria as well as assessment procedures and dates) is provided in all courses, modules or topics.
- 6.3 The level of challenge of the assessment in a programme is appropriate for the level of the qualification to which it leads.
- 6.4 There are a range of formative and summative assessment tasks and methods, which ensure that all learning outcomes are validly assessed.
- 6.5 Assessment, especially of experiential or workplace learning, is assessed in terms of predetermined outcomes and criteria.

- 6.6 A range of parties is involved in assessment of learners: for example, there might be self-assessment, peer assessment, tutor assessment and/or assessment by workplace mentors.
- 6.7 For each programme, there is at least one integrated assessment procedure which is a valid test of the key purposes of the programme.
- 6.8 There are effective procedures for recognising prior learning and for assessing current competence.
- 6.9 In distance education delivery between countries, care is taken that the assessment activities are designed and administered in ways that do not disadvantage learners in a range of contexts.

Quality assurance of assessment

- 6.10 Staff involved in assessment are assessment literate and competent to assess student learning at the level required by the programme.
- 6.11 Where part-time tutors are involved in assessment, academic staff monitor and moderate both formative and summative assessment to promote reliability and fairness.
- 6.12 The assessment strategy includes systems for internal and external moderation that meet the requirements of the accreditation body.

Assessment management

- 6.13 Marking procedures for both formative and summative assessment ensure consistency and accuracy of marking and grading, and the provision of helpful feedback to learners.
- 6.14 There are clear procedures to receive, record, process and turn around assignments within a timeframe that allows learners to benefit from formative feedback prior to the submission of further assessment tasks.
- 6.15 An appeal system is in place for when students have a complaint about the fairness of the assessment.

Security

- 6.16 Arrangements for locally administered summative assessments are secure.
- 6.17 Particularly when electronic methods are used, there are adequate systems to ensure security of personal information and security of identity during assessment processes. However, the security solutions are flexible enough to accommodate different programmes and styles of teaching and learning.
- 6.18 Documented procedures assure that security of personal information is protected in the conduct of assessments and evaluations and in the dissemination of results.
- 6.19 Assessment results are recorded securely and reliably and are available to all stakeholders including learners (as is appropriate).

6.20 Clear and efficient arrangements are in place to ensure that the integrity of certification processes is not compromised.

Assessment

Although it is key to any educational programme, formative assessment is crucial in distance education. A problem in the region, particularly with large-scale programmes, is that there is inadequate formative assessment. Absence of formative assessment denies students what is often the only opportunity to get individualised feedback on their work.

Also a problem in large-scale programmes is quality assurance of assessment. Because of large numbers of students in some distance education programmes, academic staff often delegates the marking of assignments to tutors and do not maintain sufficient control of standards. Related to this is effective assessment management. Good intentions of support and feedback can be completely undermined if administrative systems do not facilitate timely communication with learners.

Finally, it is important to recognise that assessment can be a difficult experience for learners remote from provider organisations, particularly institutions of higher learning. Providers need to try to minimise the stress for learners by making the process transparent, supported and affirming, while not compromising the standards required.

Critical success factors

Assessment is integrated into the teaching and learning process and is managed in ways that, while maintaining standards, support and affirm the learners.
--

The following elements are particularly important for rural contexts:

- Assessment is integral to and integrated into every learning and teaching strategy adopted, and includes formative as well as summative processes.
 - The marking procedures include a process for standardising grading and providing feedback.
 - There are clear procedures to receive, record, process and turn around assignments ensuring that turnaround time is kept to a minimum.
-

Example one: ways of affirming learners in the assessment process

In the University of Fort Hare's distance education Bachelor of Primary Education, one of the main factors that influenced the design of the assessment strategy was a concern that assessment, instead of being separate from learning, should inform learning in positive and affirming ways. For people in remote areas, nervous of higher education

institutions and without a great deal of experience of distance education, this is very important.

The aims of the assessment strategy, as stated by Alan Kenyon (Kenyon et al. 2000), are as follows:

- Avoiding the negative backwash from terminal examinations that characterised the traditional South African approach
- The need to go beyond merely paying lip service to continuous assessment
- The need for an assessment process that would support and build the learning process instead of just giving unexplained marks
- The need for a monitoring, appraisal, and validation process that would be rigorous and accountable but also manageable and realistic

The assessment strategy provides a model for teachers for the continuous assessment practices that they expect to implement in line with Curriculum 2005. First, instead of final exams, the teachers on the programme do work throughout the year which helps them build an individual “professional quality index” (PQI) with the following key performance areas:

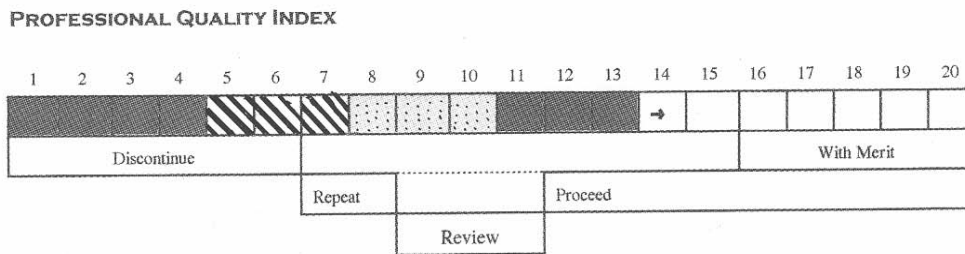
- Participation in contact sessions
- Eight tutor marked reflective assignments (Teacher-learners complete 16 practical classroom or school-based assignments during the course of the year. Eight of these, indicated in the materials together with assessment criteria, are handed in for assessment by the relevant *umkhwezeli*, using the five-point scale discussed below and supported by formative feedback. The other eight are included in the teacher-learner’s portfolio.)
- Self-selected portfolios of evidence of professional growth during the course of a year of study (Teacher-learner portfolios include the work of the full year. Teacher-learners are provided with a concertina file in which to collect their accumulated work at the beginning of the programme, and at the end of each semester, they prepare a display of their work. The display should provide evidence of activities done, what they have learned, progress as evidence of change and process as evidence of change. Teacher-learners have to be ready to defend their display to a small group of peers, *umkhwezeli* and moderators.)
- Oral presentations of the portfolio at the end of each semester (At the end of the first semester, teacher-learners give an oral account of what they have learned during the year, using evidence of work in the classrooms as well as completed assignments. The presentations are assessed, using the five-point scale discussed below, by themselves, peers and *umkhwezeli*. At the end of the second semester, teacher-learners must defend their portfolio to a panel.)

The PQI is determined from a combination of performance in these four key areas, but can also be negatively or positively affected by attendance, and the quality of the teacher-learners’ personal writing in their journal.

Instead of marks, the work is judged on a five-point scale from weak to excellent with regard to meeting the task requirements:

- Weak: not adequate – doesn't meet requirements
- Okay: adequate – just meets requirements
- Good: meets requirements well
- Very good: more than meets requirements
- Excellent: outstanding – goes beyond requirements – quality work

Instead of exam results, the summative assessment is expressed as a Professional Quality Index, with information on the teacher-learner's performance. The following illustration shows a teacher-learner who achieved a Very Good (four blocks) for participation, and Good (three blocks) for each of oral presentation, assignments, and portfolio presentation. This means that she can proceed to the following year.



KEY TO PROFESSIONAL QUALITY INDEX

- Participation (listening, sharing, supporting and democratic group work)
- ▨ Oral Presentation (sense, effectiveness of communication, clarity, contributions)
- ▤ 8 Written Reflective Reports/Research Assignments
- Portfolio Presentation (evidence of professional growth and development)

- Journal quality affects final Index score positively
- ← Poor attendance affects final Index score negatively

Outcome Decision: PROCEED to Year 2 of B.Prim Ed

Signed:
 nhlanganiso dladla - Project Director

*With recognition of Prior learning this is equivalent to studies in Education at a third year post matric level.

An example of the cumulative assessment sheet that learners on the in-service B Prim Ed degree programme receive.

Instead of only the tutor assessing the teacher-learner's work, there is self-assessment and assessment by peers. As a teacher-learner explains, this can be reliable as well as fair and valid: "Firstly, it nullifies favouritism and victimisation, as many people are involved. Secondly, the assessor will have to state the reason why s/he is awarding that particular assessment. This is very helpful in making improvements."(Kenyon et al., 2000)

Finally, instead of pen and paper moderation of a sample of examination scripts, moderators are invited to join the portfolio presentations at the end of the year, as part of an affirmation process – an affirmation of what the teacher-learners have learned, and how their classrooms have changed.

Example two: the importance of sound assessment management systems

In a SAIDE evaluation of the assessment practices in a flexible learning Bachelor of Education Honours degree, the importance of effective assessment management was highlighted. The programme was in its first year of operation, and because the staff were used to a face-to-face model, they had not thought through sufficiently, the time it takes to receive, mark and return assignments to remote students. One of the recommendations for this programme was to work out the flow and timing of assignments for all courses in the programme at the beginning of the year and then communicate that to the students in an assessment information booklet. It was also decided that it should be clear that targets for turnaround time on assignments can be met so that students can receive feedback before they embark on the next assignment.

7. Learner Support

Criterion

Learners are provided with a range of opportunities for real two-way communication through the use of various forms of technology for tutoring at a distance, contact tutoring, assignment tutoring, mentoring where appropriate, counselling (both remote and face-to-face), and the stimulation of peer support structures. The need of learners for physical facilities and study resources and participation in decision-making is also taken into account.

Elements of the Criterion

Academic support

- 7.1 Learners are encouraged to create and participate in "communities of learning" in which the individual learner thinks and solves problems with others engaged in similar tasks. This is facilitated through a range of learner support mechanisms – peer-support sessions, tutorials/contact sessions, teaching on assignments, support in the workplace (mentoring), e-mail and Internet communications, and so on.
- 7.2 Academic support is built into the design of the course materials.

- 7.3 Learners are carefully oriented to the teaching and learning methods on the programme, particularly if electronic learning methods are used.
- 7.4 Where appropriate, the development of competence in the use of information and communications technologies is built into the learning outcomes of the programme.
- 7.5 In selection of venues and times for contact sessions, travel time and expense for learners are considered. Care is taken to place suitable sites of learning close to where students live/work.
- 7.6 Tutors are selected and trained for their role of mediating learning from the course materials. The training places particular emphasis on equipping tutors to analyse and assist learners with language and learning difficulties.
- 7.7 Tutors are trained to teach on assignments by giving constructive feedback.
- 7.8 The tutor/learner ratio is sufficiently small to enable tutors to know their learners as individuals, be able to support them in their study and monitor their progress.
- 7.9 There are sufficient contact sessions to ensure that the learners are able to achieve the outcomes of the course. These contact sessions are integrated into the course design, rather than being an add-on extra.
- 7.10 The teaching and learning activities at contact sessions acknowledge learners' existing knowledge and experience, and provide opportunities for guided integration of the new knowledge and skills as contained in the course materials.
- 7.11 There are opportunities for individual academic support for learners either by telephone, by appointment or online.

Counselling support

- 7.12 Learners have access to counselling for personal difficulties/advice related to their study before and during their course or programme, as well as after its completion.

Administrative support

- 7.13 Administrative staff are trained to be helpful, clear and consultative in the way they relate to and make arrangements for learners.
- 7.14 The obligations and responsibilities of the learners and the educational provider are made clear at registration. It is clear what resources and equipment the provider will supply, and what the learner will have to supply himself or herself.
- 7.15 Where possible, arrangements are made to meet learners' needs for physical facilities for study, tutorial and resource space.
- 7.16 Learners have access to the facilities (for example, libraries) and equipment that are necessary for their successful learning.
- 7.17 Learners are provided with technical support for each educational technology hardware, software and delivery system required in a programme.

Learning centres as part of learner support

- 7.18 Both the academic and the administrative functions of learning centres are taken care of in the way that learning centres are managed.

- 7.19 Learning centres, to the extent that they become fixed structures, and particularly fixed structures with technological equipment, are accessible to the broader community, rather than merely to a provider offering a formal programme.

Monitoring/quality assurance

- 7.20 Learner performance is monitored and learners at risk identified. Timely educational intervention is provided for such learners.
- 7.21 Performance of tutors and attendance of both tutors and learners at contact sessions is monitored regularly. The work of mentors in supporting and assessing learners in the workplace is also monitored by the provider. Monitoring data is analysed and acted upon.
- 7.22 Feedback is sought from tutors/mentors as well as from learners for the review of courses and programmes.
- 7.23 Learner structures such as student representative councils and faculty associations are established, recognised and empowered to represent learners on structures of institutional governance.

Learner support

In the context of SSA, particularly in rural areas, the purpose of distance education is often to create wider access to educational opportunity, but access is not sufficient. It needs to provide the learner with a reasonable chance of success. For this reason, learner support needs to be an integral part of the design of courses for learners in rural areas. In some countries, certain institutions regard learner support as an add-on and charge separately for it, but there is a growing awareness that integrated learner support is essential because of the varied and diverse learner contexts and backgrounds. Learner support also needs to be understood as a major redress measure for past inequalities in the provision of quality distance education programmes. Combined with careful academic counselling, learner support can promote higher retention rates and lower dropout rates.

In a number of distance education programmes in the region, the success of contact sessions is undermined because tutorial groups are too large for meaningful interaction. If groups are too large, the main aim of learner support – the development of communities of learning in which the individual learner thinks and solves problems with others engaged in similar tasks – cannot be achieved.

From our research in rural areas, it has become clear that an understanding of the role of learning centres is crucial. Several of the critical success factors below deal with the conceptualisation and implementation of learner support through learning centres.

Critical success factors

Learners are given academic support and tutoring, help with social and personal problems that affect their studies (counselling) and access to resources and information. The range of learner support mechanisms – peer support sessions, tutorials/contact sessions, teaching on assignments, support in the workplace (mentoring), e-mail and Internet communications and so on – encourage the creation of and participation in “communities of practice” in which the individual learner thinks and solves problems with others engaged in similar tasks. Learning centres play a crucial role in this.

- Various forms of learner support are built into the design of the programme. These may include visiting tutors, resident facilitators, information centres and “mobile” resources.
- Learner support is integrated into the design of the programme as a whole and includes support before registration, during learning, and at the end of the programme.
- There are sufficient, well-spaced contact sessions for groups of up to 35 at a time run by trained tutors to enable learners to use the course materials effectively for learning.
- Tutors are accessible to learners for individual consultation between contact sessions and play a proactive role in monitoring the progress of learners.
- Contact sessions are held at local venues accessible to learners to reduce costs and time spent in travelling.
- The model of learner support based on the needs of the target audience and the demands of the learning programme should shape the conception and use of learning centres – form should follow function.
- In a formal programme, learning centres are the interface between the provider, the learner and, in the case of professional/practical programmes, the workplace as well. Staff need to be appointed to manage the variety of functions that arise from this.
- There is a tension between the academic and administrative functions of learning centres: care needs to be taken to maintain both. Neglect of either means that the learning centre cannot work properly.
- Although a focus on high-intensity person-centred learner support from local people is crucial in lower-level programmes, it is important to recognise the limitations of such support as learning becomes more specialised and academic. Learning centres need to provide access to more than merely the local community and the provider. They need to be places where the global and the local are brought together.
- Learning centres, to the extent that they become fixed structures, and particularly fixed structures with technological equipment, need to be accessible to the broader community, rather than merely an institution offering a formal programme.
- Providers should take responsibility with the community and other stakeholders for establishing and maintaining community learning centres.
- The role of learning centres in distance education programmes must be intrinsic to the conception, design, administration and delivery of courses and programmes.

- Teaching and learning sites are secure and hygienic and are open to the notion that adults need childcare facilities.
 - Teaching and learning sites should endeavour to cater for the needs of learners with special needs.
 - Arrangements are made to provide comfortable and safe accommodation during residential courses.
 - Transport to teaching and learning sites is safe and reliable.
-

Example one: the course is more than the materials

In SAIDE's support of the delivery of the National Professional Diploma (NPDE) in the Limpopo Province in South Africa, a key element was the development of plans for learner support. This took the form of monthly contact sessions in which teachers came to the campus of the university closest to them and were assisted in the understanding of the course materials and the demands of the assessment.

Tutors were the interface between the provider, the materials and the teachers. They were in the role of "the more knowledgeable other," using the space provided by the contact session to support the teachers in their learning. It was therefore critical that they be adequately prepared for their task. One of the modules in the Limpopo NPDE was based on the SAIDE/Oxford publication, *Getting Practical*. Sue Cohen, who worked with the module co-ordinators to prepare the tutors for *Getting Practical* made the following comments in the unpublished paper "From Learning Guide to Course":

The module co-ordinators were anxious that there would be some consistency in key learning points highlighted in the contact sessions, and that the approach adopted in each group would mirror the approach to teaching and learning being promoted in the course itself. Given that there were 13 tutors from the University of Venda and 13 from the University of the North, and that tutors were drawn from a range of departments in the university as well as from colleges in the region, we did not feel confident that this would be achieved without intervention from us.

The intervention took two forms:

1. One was the preparation of a common marking memorandum to be used across both institutions. This was workshopped with the tutors before the marking began, and the marking was moderated by the module co-ordinators at each institution. This meant that there would be some consistency across tutors at each institution, and more than would otherwise have been the case across the institutions. After the marking, the module co-ordinators drew up a list of common errors which formed the basis of the general feedback to educator-learners at the contact sessions.
2. The other was the development of a guideline document – or "ground plan" for each contact session. In this, the module co-ordinators and I attempted to distil the key learning points that should have emerged from the work done in the previous independent study block, and the assignments, and to design activities that would

draw on educator-learners' work in that time, and offer them an opportunity to engage with the ideas with a group of educator-learners and the tutor. We tried to indicate ways in which the tutor could facilitate discussion and mediate learning. Given that there was not time to review all the work equally – and that in fact we would not want to do this, we felt it important to help tutors pull threads together for their educator-learners, and to emphasise key ideas. Each ground plan was presented to tutors at the tutor training session that precedes each contact session.

This intervention seems to have been helpful. Tutors made the following comments:

The contact session plan is very helpful – I know exactly what to do – I don't have to blow a vein thinking about what to do. It also helps keep all tutors on track – so educator-learners find they are doing the same thing – and are happy.

I find the tutor plan very useful. It highlights key issues for me – if I had to go through the book I'd get lost.

It gives us direction – we need that.

It sets norms and standards or we'd all be doing it our own way.

And, in response to the question on whether teaching this course had helped tutors to think about their own teaching in a different way, tutors had the following to say:

I'm responding also as a learner – many things have made me change what I do – it's based on OBE which is new to me.

What's helped? I feel it's the approach – the way its written – leads to group work, discussion – it's built in – you don't have to think of it as an add-on. Everything's ready-made – in both the book and the tutor plan.

They are helping us teach in a way I like to teach. I was surprised to find myself working for eight hours – and managed easily (two contact sessions in one day).

We're all involved in teacher talk – and the book forces us to let the teachers talk.

I was so interested in Section 4 – let the learners talk most. Even if I am guiding them as tutor, I should do the same, should model what the book has said.

I have changed in certain courses, and become more aware of things we've done that are important – more thoughtful about the things I do - like designing learning programmes.

I am learning a lot – even things I can use when I teach.

I also find I am learning. I teach at College – and this is the sort of thing we should be doing. I feel empowered.

These comments made by tutors, as well as the observation we made of certain contact sessions, showed us clearly that some of the “more knowledgeable others” are in need of support themselves. This support pertains to understanding such things as:

- Some of the concepts in the book
- How the book is structured
- How to integrate their own knowledge with that developed in the book so that they do not replace the latter with the former and confuse educator-learners
- How to facilitate small and whole class discussion more effectively

The contact session ground plan, the tutor training sessions and the support given with marking are all crucial elements of tutor support – essential if learners are in turn to be well supported. The module co-ordinators are presently thinking about ways to strengthen this support.

Example two: different models for learning centres

SAIDE's case of the rural education and development projects in and around Jozini in KwaZulu-Natal provides salutary examples of the use of learning centres.

The first and most salient impression of this town and its surrounds is that there is clearly a strong community commitment to making its resources available for learning. This immediately opens up multiple possibilities for learner support.

The second feature is the degree to which the many providers of education and training work together and use available resources for the benefit of learners. This combination appears to have established a “whole community” approach to learning which includes the local traditional and political leadership, the private sector, strong NGO's from outside, influential figures (such as principals), outside funders and distance institutions of higher learning.

Jozini has generated three models of learning centres:

- The simultaneous use of multiple sites such as 14 schools and other venues in town
- A purpose-built centre for in-service training and community needs, such as a library
- Single sites, such as individual schools, used after hours

Critical success factors for learning centres include:

- Access to centres, either by walking or using affordable public transport is critical to a learning centre. The use of a central venue (i.e., one more accessible than others) or adopting a school clustering approach could alleviate the problem of inaccessibility. School clustering may be used in the context of multiple learning centres approach to whole school development.
- Principals and school governing bodies are critical role players in enabling access and use of schools as learning centres by other programme providers. However, contractual arrangements need to clarify security and accountability issues.
- The proper management of a learning centre is vital to avoid clashes between the different activities. This calls for inclusivity in the management of the centre,

democratisation of management processes and co-operation between various stakeholders. In turn, this inclusiveness will reduce tensions and promote a consensus-building process.

Example three: integrating contact sessions into the programme as a whole

Through its work in the Jozini area, SAIDE found that, by and large, learning in rural communities happens through personal contact. There is no established culture of resource-based, independent learning. It is therefore important that any new programme introduced into a rural area be very contact-based at the beginning. Learner support cannot therefore be an optional extra, but should be designed into the structure of the course from the beginning.

This understanding has driven the delivery of the National Professional Diploma in Education at UNISA. Instead of following the usual UNISA practice of requiring payment for add-on learner support sessions, the NPDE has integrated the contact sessions into the programme as a whole, as part of the package, without charging extra. This is different from the learner support organised centrally for all departments at UNISA, where attendance is optional and an additional fee is charged.

Learner support as an add-on extra for an extra fee would not have worked for rural learners for whom low incomes and remote location are barriers to access.

8. Human Resource Strategy

Criterion

The staff structure as well as the experience, qualifications, responsibilities and job descriptions of staff are appropriate for the education and training services provided; staff development programmes equip staff to perform their roles and tasks effectively.
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Elements of the Criterion

Staff complement

- 8.1 Distance education teaching tasks are distributed among separate functional responsibilities; for example, course design, instructional design/course materials development, electronic media use, editing, tutorial support for learners, monitoring of tutors, counselling, assessment, and management of the distance education learning system.
- 8.2 The main responsibility for programme development, course design and monitoring of programme delivery is that of properly qualified academic staff.
- 8.3 Course design/development staff is suitably qualified (at least two levels above the level of the course).

- 8.4 The number of full-time academic staff in the educational provider is as small as possible, but the number of tutors (mostly employed on a part-time basis) is sufficient to provide for the individual needs of the learners.
- 8.5 The educational provider employs sufficient administrative and technical staff to handle the specialised tasks of registry, despatch, management of assignments, administrative support, as well as technical support to learners and staff with required IT hardware and software.

Staff development

- 8.6 Staff are trained, monitored, and supported for the specialised roles and tasks they perform, including the design, management and delivery of electronically offered programmes.
- 8.7 Staff engaged in online tutoring and the moderation of online discussions are qualified and trained for the intensive engagement and direction which is required.
- 8.8 Staff development is regarded as the responsibility not only of the individual, but also of the particular department and educational provider in which the individual works.
- 8.9 There are systems for the dissemination of newly acquired skills and information.

Workload

- 8.10 Academic workload is measured in terms of the following:
- course design
 - preparation of course materials
 - piloting of courses
 - devising and participating in assessment strategies
 - tutoring, particularly online tutoring
 - supervision of tutors/markers/other staff
 - management of courses
 - monitoring the success of the course
 - research and evaluation
 - contact hours with learners.
- 8.11 In planning workloads, it is recognised that more time is needed for research and development of electronically offered programmes because of the complexity and expense of virtual education.
- 8.12 The workload of staff involved in online support for learners is carefully monitored.

HR systems

- 8.13 Arrangements are in place for the proper recruitment, training, monitoring and payment of the necessary part-time and contract staff.
- 8.14 Staff selection and promotion criteria give priority to quality of performance in course development, teaching, and management of learning.
- 8.15 There is an effective performance management and appraisal system for all staff.
-

Human Resource Strategy

As was reflected earlier in this section, the three pillars of distance education provision are administration and management, learner support, and materials design, production and delivery. Obviously, for successful functioning in these three areas, there is a need for adequate staff provision as well as staff development. Several countries in the region report problems with inadequate administrative support, as well as staff shortages at the course co-ordination level.

Although the issues in distance education generally and in distance education for rural contexts are broadly similar, there is one large factor that needs to be taken into consideration for rural areas: it is much more difficult to attract sufficient qualified and experienced tasks for the complex range of staff functions required in distance education. It is critical to integrate staff development in imaginative ways into the planning and implementation of the programme so that all staff are continually learning as they contribute to the functioning of the programme. Botswana rates staff development in the top three factors that contribute to success in distance education design and delivery.

Critical success factors

There are effective processes for attracting and retaining sufficient numbers of competent staff. Staff development is a priority and staff work in teams to ensure development and sustainability.

- The programme employs sufficient administrative and technical staff to handle the specialised tasks of registry, despatch, management of assignments, and administrative support.
- Staff (tutoring and administrative staff) works in teams to design and manage successful learning.
- Particularly in large-scale programmes, sufficient numbers of academic staff are employed in order to manage and quality assure the work required in course design and delivery.
- Staff are trained, monitored and supported in an ongoing way for the specialised roles and tasks they perform (e.g., assessment for recognition of prior learning and/or the management of information). Special arrangements are made for those in remote areas.
- Career and learning pathways for staff are put in place and made known to them.
- Strategies are in place to ensure that sustainability does not rest with one or two highly skilled people.

Example one: recruiting suitably qualified and committed tutors

Given the crucial role of tutors in rural distance education, a major difficulty is the recruitment of suitably qualified and committed tutors. Some South African responses to this problem are the following:

- Developing a cadre of freelance tutors trained through formal programmes and able to offer their services to a range of providers. The University of South Africa is considering developing a tutor/mentor training course which will give tutors credit to a formal educational qualification such as an Advanced Certificate in Education, but will enable them to hire themselves out as tutors not only to one institution or programme, but to whatever institutions and programmes are operating in the area in which they live.
- Using in-house training of tutors as a basis for extended educational enrichment through a Bachelor of Education Honours or master's programme. The University of Fort Hare's Distance Education Project is currently exploring this response. The tutors receive training for tutoring on the Bachelor or Primary Education once a semester. This means that some tutors have attended at least eight training sessions, but their earning power has not increased. A Bachelor of Education Honours or Master's programme would make them more marketable, and as most of the tutors are teachers, they would receive some remuneration for studying.

Example two: making tutor training central

In the proposal for a new programme for the classroom-based training of foundation phase teachers, the University of Natal and SAIDE have outlined a plan for the training of tutors to support these teachers. In teacher education programmes, tutors have a vital role, not only in supporting the teachers academically, but also in helping model new ways of teaching. This means that they themselves need extensive training.

The following is an extract from the draft programme proposal:

Key to the success of this programme will be the motivation and competence of the tutors.

Academic support tutors will need to be selected on the basis of their understanding of foundation phase as well as their ability to support the students academically. As the students are likely to find it difficult to study through the medium of English, tutors should also be in a position to use the first language of the students to mediate the materials.

The overall teaching approach will be written up and used as a basis for the training of the tutors. This would include (but not be limited to) the following elements:

- Providing a baseline for all activities (i.e., tutors must assume that students have the same baseline knowledge, and take them step by step through the cumulative process of building understanding - this will model the stages necessary in teaching young children, but it will also, in an unthreatening way, help the students "catch up" themselves with aspects they may have missed out on).
- Immersing the teachers in a Foundation Phase environment (a rich childhood experience) - through involving them in play and the kinds of activities they will be using with the learners.
- Building teaching aids with teachers as a "starter pack" for Grade 1

- Believing in children's possibilities
- Continuous reflection on own learning and practice.

Tutors will need to be trained not only in the general teaching approach, but also for assessment of student progress. Prior to the introduction of each new module tutors will need thorough orientation to the content and approach. This will necessitate at least 10 days of training per year.

Example three: training of part-time staff at NAMCOL

The Namibian College of Open Learning (NAMCOL) with 20,000 learners mainly in the populous northern region of Namibia is the largest educational institution in Namibia. NAMCOL's core activity has traditionally been its programme of Alternative Secondary Education, which offers students the opportunity to study for the grade 10 and grade 12 certificates. Recently, the college has also started offering vocational courses.

With 90 centres and 900 part-time staff, staff development has to be a priority. The regional staff is full-time employees, but the tutors who are employed as teachers at the schools and who offer tuition to NAMCOL students in the afternoon, as well as the heads of centres, are part-time.

In SAIDE's evaluation report of the NAMCOL capacity-building project known as the Bath-NAMCOL Partnership Project, it emerged that there needed to be much more emphasis on the training of heads of centres (Randell and Welch 1999). Currently the heads of centres are responsible for training and supporting tutors, and regional teams are expected to train and support the heads of centres to enable them to manage not only the training of tutors but also all centre activities. However, this was not working as well as expected. As a result, SAIDE was invited to assist NAMCOL to plan and run workshops for its part-time staff.

The first step was working with regional staff to develop a training plan for Heads of Centres. Randell (2001) reports:

The approach I used was to mirror in the workshops the methods that the regional teams could use in their training with the part-time staff...I wanted the teams to experience first hand innovative and participative training methods and hoped that they would be motivated to organise the training for their HOCs in 2001 in a more interesting and practical way than they had done before.

The next step was to train the regional teams to prepare their own workshops and facilitate sessions during the workshops:

Upon my return in February and March to assist the teams in their immediate preparation for the HOC workshops, I observed how much the November learning experiences had impacted on the way they approached the detailed planning. Two of the three teams used most of the core ideas developed in

November and it was interesting to see how each team had adapted the programme to reflect some of their contextual needs.

A number of elements contributed to making the whole training intervention with the regional teams a rich learning experience:

- The approach and methods used during the regional team workshops in November gave the teams first-hand experience of a participative approach.
- Members of the team were given opportunities to practise some facilitation and presentation skills during the workshops in November.
- Each team was expected to draw on the workshop programme developed jointly and to write up their own programme reflecting some of their contextual needs and priorities.
- A day before the Head of Centre workshops I coached individual team members and gave them the opportunity to practise in detail what they would be doing in the session(s) for which they were responsible.
- On the day of the workshops I observed the teams in action and gave them immediate feedback on their performance.
- A colleague from NAMCOL and I reviewed the piloting of the new Head of Centre workshop format in three regions. We identified what worked, what did not work and what changes we should make to improve this learning experience in future.

9. Management and administration

Criterion

There is effective, transparent and democratic management of communication and information as well as human and material resources; efficient administrative systems support the activities of the educational provider; the educational provider is financially sound and can make reliable educational provision.

Elements of the Criterion

Accountability and governance

- 9.1 There are clear lines of accountability within the educational provider, between the educational provider and its governing structures, and between the governing structures and the community.
- 9.2 Proper accountability structures and mandates for responsible officers are in place.
- 9.3 Staff and students and external stakeholders are represented on governance structures.

- 9.4 Mechanisms are in place to prevent staff from using their position of power within the institution to generate extra revenue for personal benefit or double payment for the same work.

Management of communication

- 9.5 There are effective systems for communication with current and potential learners, with key outside bodies, with governance structures, and with all staff and tutors involved in courses.
- 9.6 Enquiries, applications and complaints are dealt with quickly and clearly within a structured administration system.
- 9.7 Learners' questions are answered quickly, clearly and supportively.

Management of the curriculum

- 9.8 Appropriate schedules are developed for all activities forming part of the distance education system, with due attention given to lead times needed to meet deadlines.
- 9.9 The enrolment practices include provision of accurate, helpful information to prospective learners, as well as efficient handling of money and registration information.
- 9.10 The production and delivery of course materials is fast, accurate and reliable. Where existing systems prove inefficient, creative alternatives are found.
- 9.11 There are systems to organise decentralised support for remote learners – grouping of learners, allocation of tutors, and location of suitable sites of learning.
- 9.12 There are clear procedures to receive, record, process and turn around assignments.
- 9.13 The turnaround time on assignments is kept to a minimum.
- 9.14 The examination system, where it is necessary, is reliable and valid.

Management of information

- 9.15 Learner records (for example, contact details, assessment results) are detailed, up to date and accessible to tutors, academic and administrative staff.
- 9.16 Tutor records (for example, qualifications and experience of tutors) are detailed for each tutor and available to tutor-monitors.
- 9.17 Records of course results and other management information can be analysed to
- Give completion rates for each group of learners
 - Identify at-risk learners
 - Identify inactive learners

Management of facilities and equipment

- 9.18 Facilities and equipment support the learner and are appropriate for the education and training services provided.
- 9.19 In the case of electronically offered programmes, the provider ensures the reliability and predictability of a “fit-for-purpose” teaching and learning delivery platform, and there is a budget for regular upgrading.

- 9.20 Equipment and facilities are well managed and maintained and secure against damage or theft.
- 9.21 There are emergency methods of communication for use in the event of a failure of the primary channel of communication, and these are fail-safe.
- 9.22 Staff and learners are trained in the use of the equipment, facilities, and communication and information systems.

Management of finances

- 9.23 Proper budgetary processes are in place to ensure that the allocation of resources reflects the goals, values and principles of the educational provider.
- 9.24 Financial procedures (for example, handling of fees, orders, accounts, receipt of external funds, and part-time and full-time salaries) are known and adhered to.
- 9.25 There are budgeting procedures in place to deal with the allocation of resources and monitoring of expenditure. The budgeting procedures are flexible enough to promote and enable constructive experimentation in design and delivery methods.
- 9.26 Proper evaluation systems are in place to compare estimated goals and budgets with actual achievements.
- 9.27 Clear decision-making structures exist for seeking and receiving funds and the allocation and control of resources.
- 9.28 Financial aid and information about criteria for its allocation are provided for learners, external funding and donations permitting. Information about financial aid is clear to all learners.

Governance, management and administration

Comments from providers in the region refer frequently to the importance of ensuring that education managers understand priorities for distance education delivery and are supportive of distance education processes. A common vision should be complemented by supportive and responsive management systems. In particular, formal programmes targeting rural communities require decentralised planning and local provision of services co-ordinated by strong local leadership.

A particular issue in management is resource management. Namibian representatives at the DEASA workshop in South Africa in October 2003 made some interesting points about this. They said:

Money is not a problem. The problem is that budgeting is too broad. There should be a targeted budget that focuses on specific aspects of DE programmes design, development and delivery.

A second critical issue for rural development projects is governance. In SSA, there has been a history of imposition and control by external agencies such as funders or even NGOs. This often resulted in lack of ownership of the programme, lack of sustainability and failure. The “demand-driven” approach to development, where communities are seen as active partners, has been widely accepted as essential to bringing about sustainable development. Community-government partnerships or community-provider partnerships or community-provider-government partnerships are essential for carrying out decentralised planning and implementation of services.

Critical success factors

There is effective transparent management of communication and information as well as human and material resources; efficient administrative systems support educational provision; there are appropriate financial strategies in place to make reliable educational provision. Communities play a key role in programme. The roles of various stakeholders in the design and delivery of the programme are clearly outlined.

Management and administration

- Management and administrative systems in rural contexts should be flexible, responsive and designed to be taken to scale.
- In rural areas, there is a need for a balance between centralised and regionalised management and support processes.
- There needs to be clarity around roles and responsibilities and lines of communication and decision-making within at least the following subsystems:
 - Registration and fees collection
 - Curriculum design
 - Materials production and despatch
 - Learner support
 - Human resource management
- Clear lines of communication and regular use of established communication channels are essential for the smooth running of a large-scale programme.
- Staff has the capacity to manage the finances.
- Efforts are made to keep costs low and to provide financial aid to learners. Information about financial aid is clear to learners.
- Monitoring and evaluation systems are in place to track expenditure and compare it with actual achievements.

Governance

- Statutory committees or specially constituted committees are in place to participate in institutional development and service delivery.
- Staff, learners, community and other stakeholders are represented on governance structures.

- Community participation is inclusive to allow the community as a whole to participate in programme design, implementation and review.
 - Local people are sufficiently empowered to carry the process forward independently.
 - Communication tools and strategies must reflect the principles of participatory development in their design, their content, and their dissemination.
-

Example one: governance issues in learning centres

In research that SAIDE did into learning centres in the Jozini area, a number of issues relating to governance became clear:

- Support of political and community leaders for learning centres is vital to emphasise the value of these sites to the community.
- In cases where the learning centre is also a school, the principal and school management (particularly the school governing body) need to be involved in the governance of the learning centre.
- In the case of purpose-built centres, it is important that contractual agreements be worked out by ALL sectors of the local leadership - managers/directors/co-ordinators of programmes as well as, where applicable, the relevant education authority. Otherwise, the result could be that the centre lies idle for a considerable time, as happened in the case of the Education Resource Centre in Jozini.

Example two: the importance of effective administrative systems

In a paper on the Fort Hare Distance Education Project, two staff members on the project, identified a range of systems problems that interfere with learning (Osei-Agyakwa and Botha 2001). These show up starkly because the curriculum dimensions of the programme are so strong:

Firstly, [the research] points clearly to five important factors which support learning:

- Face-to-face sessions which give teacher-learners an opportunity to share and discuss
- AbaKhwezeli who offer support and guidance
- Practical activities which enable teacher-learners to learn by doing;
- Integration of learning areas with education studies;
- Journal writes which give opportunities for reflection and for improving writing skills

Secondly, it highlights factors which interfere with learning. Problem areas which are, to some extent, within Fort Hare's control are:

- Shortcomings in timely materials production and delivery (although the system has improved a lot)

- Lack of telecommunication
- Other communication problems
- Staff shortcomings, e.g., no one to unlock; lack of systematic record-keeping
- ESSO's (educator and school support officers) cannot visit all schools
- Shortage of staff, and other staff problems
- Bad working relationships
- Management and administration problems
- Shortcomings in systems of monitoring and performance appraisal

The lists are derived from questionnaires to both teacher-learners doing the programme and educator and school support officers who act as tutors and schools liaison staff on the programme. The list of what interferes with learning on this programme is almost entirely related to management and administration. Proper systems are necessary to support learning.

Example three: distance teacher education in Ethiopia

Distance education in Ethiopia was introduced in the Sixties primarily in order to offer opportunities to young people who had stopped formal schooling at grade 8. However, soon it was extended to meet the training needs of under-qualified primary school teachers. The Primary School Second Cycle Teachers Training Through Distance Education Programme aims to:

- Upgrade the professional qualifications of under-qualified teachers in primary schools;
- Contribute to the implementation of the new curriculum in the schools; and
- Promote quality education through open and distance education (Seyoum 2003).

It does this by supporting teachers through an intensive tutorial system while they are working in primary schools. The courses offered at this tertiary level are in 10 study areas classified by major/minor courses. They are assisted by professional and supportive courses, which range from 42 to 48 credit hours each.

It is interesting that the majority of the stated areas of weakness in the programme relate to management and administration:

- **Delivery of course materials:** The geographical distance and scattered dispersion of tutorial centres hampers the distribution of course materials (modules).
- **Managerial and organisational activities:** Although the Distance Education Panel is in its youth and poorly staffed, it lacks dynamic leadership and is also unable to organise and co-ordinate its work satisfactorily.

- **Financial sustainability:** Until 2002, the organisation was funded by a foreign agency, BESO (Basic Education System Overhaul), and by the Ministry of Education. With the cessation of the BESO funding, the activities of the organisation have had to be downscaled, as government is not in a position to increase their financial contribution.
- **Facilities and training:** The Distance Education Panel (the co-ordinating body for distance education) is poorly organised and understaffed by untrained personnel. Electronic equipment and communication materials are scarce and obsolete.

Of particular importance is the emphasis on communication and effective leadership. Also important is the issue of dependence on foreign funding – a critical issue for programmes that attempt to reach deep into rural areas.

10. Collaborative Relationships

Criterion

In the interests of cost-effective provision of education and training, collaborative relationships are formed and collaborative projects are undertaken wherever possible.

Elements of the Criterion

- 10.1 Wherever possible, collaborative relationships (involving public and private institutions, governmental and non-governmental educational providers, stakeholders and/or community structures as well as agencies or providers outside of the country) are formed for:
- sharing developed courses;
 - jointly developing new courses;
 - sharing facilities such as libraries and learning centres;
 - sharing regional centres for learner registration, distribution of study material, and examinations;
 - jointly delivering programmes;
 - collaborating in research.
- 10.2 The membership of relevant associations and forums is encouraged.
- 10.3 The programme plan includes criteria for selecting partners and contractors and the means to monitor and evaluate their work. This is particularly crucial for electronically offered programmes in which a much greater degree of collaboration in programme development is necessary.
- 10.4 To facilitate workplace learning, partnerships are built with employers that enable productive experiential learning opportunities for learners.

- 10.5 In the organisation of consortia for programme development or delivery, structured contractual relationships are formed to protect the interests of all parties including the learners. Performance expectations are defined in contracts and agreements.
 - 10.6 In cases in which providers offer programmes developed externally (either by an e-university or other external sponsoring agencies), there are clear procedures for programme approval in which the quality assurance requirements of both provider and the external body are dovetailed.
 - 10.7 In programmes delivered collaboratively, the responsibility for performance remains with the provider that certifies the learners.
 - 10.8 In the case of public private partnerships, the public partner takes full academic and quality management responsibility, and ensures that student rights are protected.
-

Collaboration and partnerships

Large-scale programmes, as well as programmes with deep rural penetration, are human resource intensive. The difficulty of employing sufficient appropriately qualified staff means that collaborative projects are critical; partnerships with NGOs as well as with other national and international providers of education and training can greatly help in capacity-building of local people. Collaborative relationships with government departments (e.g., for workplace assessment) or local councillors can bolster human capacity in programmes as well as foster holistic solutions to the problems in rural areas.

However, in rural areas, outside agencies need to be seen as legitimate by local people. Rural communities are, in general, characterised by an emphasis on knowing and trusting the other person you are working together with. Any interventions in rural areas must factor into planning the time needed to build up a relationship of trust with the local community.

Critical success factors

Wherever possible, collaborative relationships (involving public and private institutions, governmental and non-governmental educational providers, funders, stakeholders and/or community structures) are formed in order to provide cost effectively for the needs of learners. Care is taken to avoid unnecessary duplication of products and services.

Collaborative relationships are formed for the following purposes:

- Sharing developed courses
- Jointly developing new resources
- Sharing facilities such as libraries and learning centres
- Sharing regional centres for learner registration, distribution of study material, and examinations

- Collaborating in the delivery of programmes
- Establishing links and working relationships with external agencies providing professional development and or funding.

Clearly identifiable tasks are worked out for each member in a collaborative relationship or consortium to minimise problems that may arise in partnerships. A memorandum of agreement should formalise roles and tasks of different stakeholders in a consortium.

Where appropriate, providers should seek to work with local councillors to support integrated rural development strategies, providing support for human resource development amongst all parties.

Example one: local and international partners managed by strong local leadership

The success of the University of Fort Hare's Distance Education Project is in large measure due to strong innovative local leadership over a consistent period of time. Such leadership needs to be critically aware of and able to engage external sources of assistance, but also to retain its own direction and control. The project has close relationships with the University of South Australia and has had input from the United Kingdom Open University and SAIDE, amongst other organisations.

It also recognises that in rural education where resources, particularly human resources, are scarce, it is essential to form collaborative relationships to support delivery. Hence there are strong links with the Eastern Cape Department of Education and Culture; for example, a number of ex-college lecturers are seconded to tutor in the Bachelor of Primary Education, and they are simultaneously able to support the teachers on the programme in their schools. There is synergy between their work as departmental officials and their work for the project.

Example two: critical success factors for collaboration

Partnerships are vital for pooling of resources and skills sharing. Rural education programmes are characteristically collaborative ventures. In the research into education and development programmes in Jozini, the following was discovered:

- The FDE Technology involves Ort-Step, Rhodes University and Promat.
- Mjindi Agricultural Project works closely with the KwaZulu-Natal Department of Agriculture and the Land Bank.
- The Jozini Effective Schools Project was managed by a staff member of Promat in Pretoria, who involved a range of NGOs in the provision of programmes for whole school and subject teaching development (e.g., Molteno and the Association of Mathematics Educators of South Africa).

Critical success factors for such collaborative ventures include:

- Programmes should meet the needs of the community in a way that is perceived by the community as directly beneficial.
- The personality of local leaders plays a vital role in ensuring that programmes run smoothly.
- Individuals with vision need to motivate buy-in of the community for the programmes to succeed.
- Programme managers should work with all relevant stakeholders including the local leadership in the form of *indunas* (chiefs) and local government. This calls for inclusivity in the management of the programme, democratisation of management processes and co-operation between various stakeholders. In turn, this inclusivity will reduce tensions and promote a consensus-building process.
- There is a need to have a respected community member who can actively develop contacts and support networks, who has access to a variety of communication tools, and who is mobile and multilingual.

Example three: A Memorandum of Understanding for collaboration in programme design and delivery

The collaboration between the University of the North and the University of Venda for Science and Technology in the delivery of the National Professional Diploma in Education was outlined in a Memorandum of Understanding. The universities agreed to share course design, modules, materials and assessment, and operate according to the same timetable. However, each university would register, teach and certificate its own students, as well as employ relevant staff to run the programme. Competition for students would be eliminated by dividing Limpopo Province into regions, and agreeing that students from particular regions must register with the institution closest to them.

Institutions employed their own staff and managed their own finances, but general policy on human resources, finances and curriculum, as well as keeping abreast of national developments, was the responsibility of a project management committee, with representatives from each institution.

The collaboration has a number of advantages:

- Sharing materials purchased elsewhere reduces costs.
- Sharing course design, modules and assessment reduces work, but also provides opportunities for staff across institutions to learn from each other.
- It is possible for staff at both institutions to make use of capacity-building offered by external agencies at half the expense.

However, there are also difficulties:

- Arrangement of project management meetings is time-consuming.
- Meetings between module co-ordinators working on the same course are difficult to arrange across distances.
- There are tensions if the conditions of service for employees at one of the institutions differs from those at the other institution when they are performing the same tasks.
- There is a need not only for formal quarterly project management committee meetings, but also for more regular cross-institutional executive management meetings, and these are time-consuming and the timetable for them is difficult to establish.

Example four: collaboration in the management of a large-scale national programme

The Kenyan School-based Teacher Development Programme (sbTD), which at the end of its implementation cycle will have provided in-service training to 29 per cent of Kenyan primary school teachers (52,000 teachers in all) recognised that collaborative relationships were critical. The programme was therefore based on the following principles:

- Involvement of key stakeholders: formation of a steering group made up of representatives of key educational cadres (e.g. TACs, school inspectors, curriculum developers, head teachers, teacher trainers, distance education material writers, etc.)
- Capacity-building: “home-grown experience is blended with international expertise”

The overall desired outcomes were identified as being the following:

- Development and strengthening of existing systems and structures of the Ministry of Education Science and Technology (MOEST): Towards this end, the model of SbTD implementation was based on the existing MOEST systems, which facilitated delivery of the programme as well as strengthening of existing MOEST cadres.
- Sustainability: For sustainable and maximum impact at school level, three teachers who have specialised either in Maths, Science or English are enrolled from each of the public primary schools. To further engender programme sustainability, SbTD implementation has been mainstreamed within the existing MOEST system so that SbTD programme can actively contribute towards the development of a national co-ordinated system of in-service provision.
- Quality assurance: Quality checks are built into the design, development and implementation process, plus an approach that ensures that resources are being used efficiently.

The implementation and achievement of these principles and aims required a considerable outlay of resources, both human and financial, which proved to be beyond

the ability of the MOEST. For instance, for some time now, the budget of the MOEST has usually taken up at least 30 per cent of the entire national budget. Additionally,

currently, 98 per cent of the MOEST's recurrent budget is spent on teachers' salaries. This situation leads to severely limited levels of funding for in-service training programmes. The Kenya Government, therefore, entered into collaborative arrangements and partnership with DiFID. As a result of these arrangements, they are implementing this low cost SbTD programme jointly.

This strategy is one that seems quite common in SSA countries. What could add greater value to this approach is to have SSA countries and DEOL institutions make attempts to seek partnerships and collaborative mechanisms from within the region, as this in the long run is the more sustainable route. In any case, SSA countries should be "natural partners" in view of the commonalities between them, from a DEOL perspective, as highlighted elsewhere in this report.

11. Quality Assurance

Criterion

There is an integrated framework at a policy and practice level that informs a clear cycle of planning, implementing, monitoring, reflection and action to ensure that learners' and staff needs as well as the needs of other clients are met.

Elements of the Criterion

- 11.1 The provider ensures that day-to-day activities are aligned with its mission, goals, principles and policies in relation to national and/or regional priorities.
- 11.2 Internal quality assurance processes are articulated with external processes as laid down by the relevant quality assurance bodies.
- 11.3 There is a clear cycle of planning, development, documentation, reporting, action and review of policy and procedures.
- 11.4 In the case of electronically offered programmes, mechanisms for monitoring learner participation and performance are designed into the technical platforms used in electronically delivered programmes. For example, systems may be designed to track
 - the time spent by different learners on components of the materials
 - the sequence of choices made by learners in accessing Web-based files; or
 - learner participation in online discussions.
- 11.5 The provider engages in benchmarking and uses appropriate monitoring and evaluation techniques to gather and analyse data to use as a basis for setting priorities and planning for quality improvement.

- 11.6 There are demonstrable processes and ongoing efforts to improve the quality of teaching and learning according to priorities identified in through monitoring and evaluation processes.
- 11.7 Staff development is a fundamental strategy to promote quality service provision.
- 11.8 Staff, learners and other clients are involved in the process of quality assurance and quality review. There are clear routines and systems for quality assurance and staff is familiar with those that relate to their work.
- 11.9 Quality management mechanisms are in place to ensure that exported programmes are of equivalent quality to those offered in South Africa, and that there is compliance with the national quality criteria and other requirements of the importing country.

Monitoring, evaluation and reflection

This criterion is better described as monitoring, evaluation and reflection, which makes it more “friendly” to the full range of programmes in SSA and particularly in rural areas rather than simply the more formal, accredited ones.

In general in the region, there is far too little investment of either time or resources in monitoring of programmes. This is an issue for all programmes, whether face-to-face or not. But it is more critical in distance education; the increased complexity of the systems and the remoteness of the learners from the centre mean that it is difficult to pick up informally when things are not happening. Formal monitoring systems have to be developed to provide information to the management at the centre, so that action can be taken before it is too late. There are customarily three problems with monitoring systems:

- The plans for monitoring are over-ambitious. Too much information is collected, and the nature of the information is difficult to analyse.
- Data are collected but never analysed and reported on.
- No action is taken on the basis of the reports.

Critical success factors

There is a clear cycle of planning, implementing, monitoring, reflection and action to ensure that learner and staff needs as well as the needs of other partners are met.
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- There is a clear cycle of planning, development, documentation, reporting, action and review of policy and procedures.
- A framework of data collection and record keeping is developed at the start of the project, for purposes of project management, documenting activities and formative and summative evaluation.
- There are clear routines and systems for monitoring, and staff is familiar with those that relate to their work.

- The community, staff, learners and other partners are involved in the process of monitoring and quality review.
 - All partners should share in the evaluation of the successes and lessons of the programme and these experiences should be documented to create a culture of growth and transparency.
 - Monitoring data are not only collected, but also analysed and acted upon.
 - Monitoring procedures include a check on gender equity relating to access and throughput.
 - Training ensures that the target audience accepts the messages in the evaluation of the programme so that they act on them or change their behaviour within a particular context.
-

Example one: closing the feedback loop

One of the difficulties with monitoring mechanisms is that a great deal of time and trouble is taken to gather data, but often they are not analysed for lessons of experience. And then, even if they are analysed, they are not used in planning for the next year or the next cohort. Feedback on the operation of the programme has to be used, or at least considered, in management planning. Otherwise the exercise is a waste of time.

An attempt was made in the Limpopo NPDE to use the results of a review of the first year of operation. The findings of the review of the systems and teaching approach in two of the modules formed the basis of the agenda for a management planning meeting for the following year. Three of the 20 or so issues raised, which had a direct bearing on developing the calendar for the following year, were:

Contact sessions

Fortnightly or monthly contact sessions, or else more contact sessions in the beginning to set the teachers up for distance learning.
No more than two modules running at one time.

Tutor training

Schedule tutor training sessions for each contact session earlier than this year (in the preceding week, rather than the same week).

School support

The timing of school visits needs to be considered. Teachers of grades 11, 12 and 13 found August/September unsuitable.

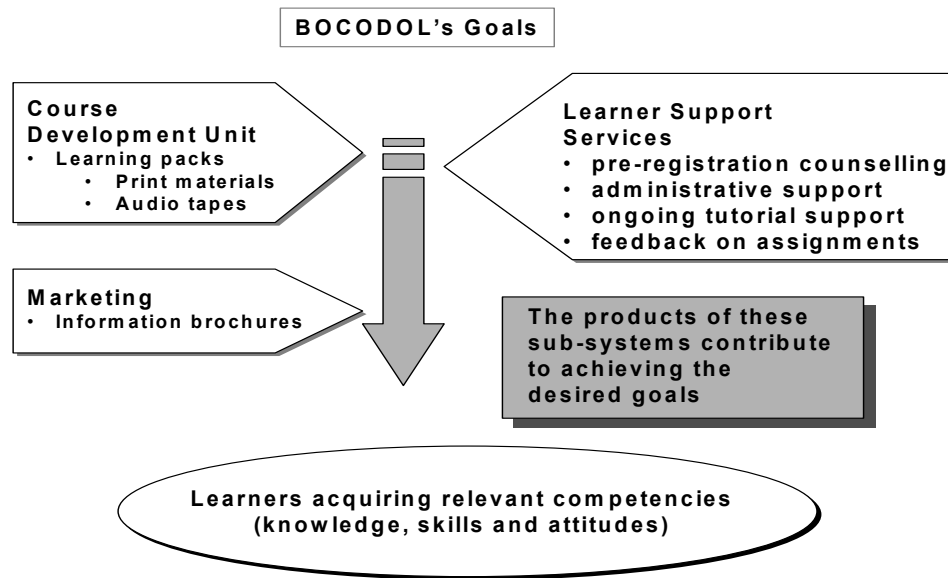
All these recommendations were then discussed by management and implemented in the design of the calendar for 2003.

Example two: quality assurance of the “products” of the Botswana College of Distance and Open Learning

The Botswana College of Distance and Open Learning (BOCODOL) was created as a semi-autonomous distance education institution by an Act of Parliament in December 1998. It replaced a government department, which had been running school-equivalency courses at a distance for over 20 years. BOCODOL’s aim is to provide high-quality learning that is accessible to out-of-school young people and adults nationwide using the methods of distance and open learning. One of the expectations is that the college will improve on the quality and range of courses offered and the numbers and types of learners reached. Currently, there are some 7,000 learners registered countrywide.

In a workshop run by SAIDE in November 2001, Christine Randell led a discussion about building quality into the course development process. The point of departure was a debate about what BOCODOL’s “products” are. Randell reports:

We started the workshop with a short reflection on the nature of the “products” that BOCODOL produces. A heated debate ensued, during which one participant maintained that we could not regard learning materials, learner support services and information brochures as products. According to him, they are tools that help BOCODOL to develop the ultimate products, which are **learners who are well equipped with relevant knowledge and skills to make a positive contribution to Botswana**. In essence, people agreed that the aim of the institution is to develop a cadre of students who have developed the necessary competences. However, each of the sub-systems within BOCODOL produces specific products to achieve this aim. The diagram below was created by the participants, and captures this interesting interaction.



Before embarking on a review of the process of developing courses, we brainstormed around minimum standards that these “products” should meet in the interest of starting to build in quality. We came up with the following list of criteria:

1. Statements of objectives are linked to the purpose of the course and are clearly communicated to the learners.
2. The content is accurate, up-to-date and reflects sensitivity to culture and gender.
3. A variety of activities with suitable feedback comments are found at regular intervals in the text.
4. The language used is accurate and free from spelling and grammatical errors and the level is suitable for the learners.
5. Illustrations are relevant, clear and fully captioned.
6. There are adequate assignments to develop the necessary skills and learners receive feedback on their assignments.
7. The learning packs sent to learners are complete with relevant audiotapes.
8. Learners receive regular support by trained tutors at the learning centres.

Example three: process review – integrating quality assurance and planning

Usually developmental evaluations identify key questions, and look at a range of data – student opinion, staff opinion, student achievement, evaluation of learning materials, and so on – and attempt to develop a set of findings and recommendations. But, although

these findings will provide *opinions* about how the systems and processes are working in a particular programme, they often do not result in a clear documentation of the processes, so that a review of the processes can be comprehensive, systematic, and clearly related to planning for the next cycle.

In an evaluation of the assessment practices of a flexible learning Bachelor of Education Honours degree, as well as using the customary sets of data for evaluation, SAIDE adapted an approach designed by the Namibian College of Open Learning for the review of their systems (SAIDE 2000):

A way to document and review the quality assurance mechanisms in place in your programme is through process review. This helps the staff involved to see the whole process, the role of the different people in the process, and where the potential pitfalls are, so that improvements can be made.

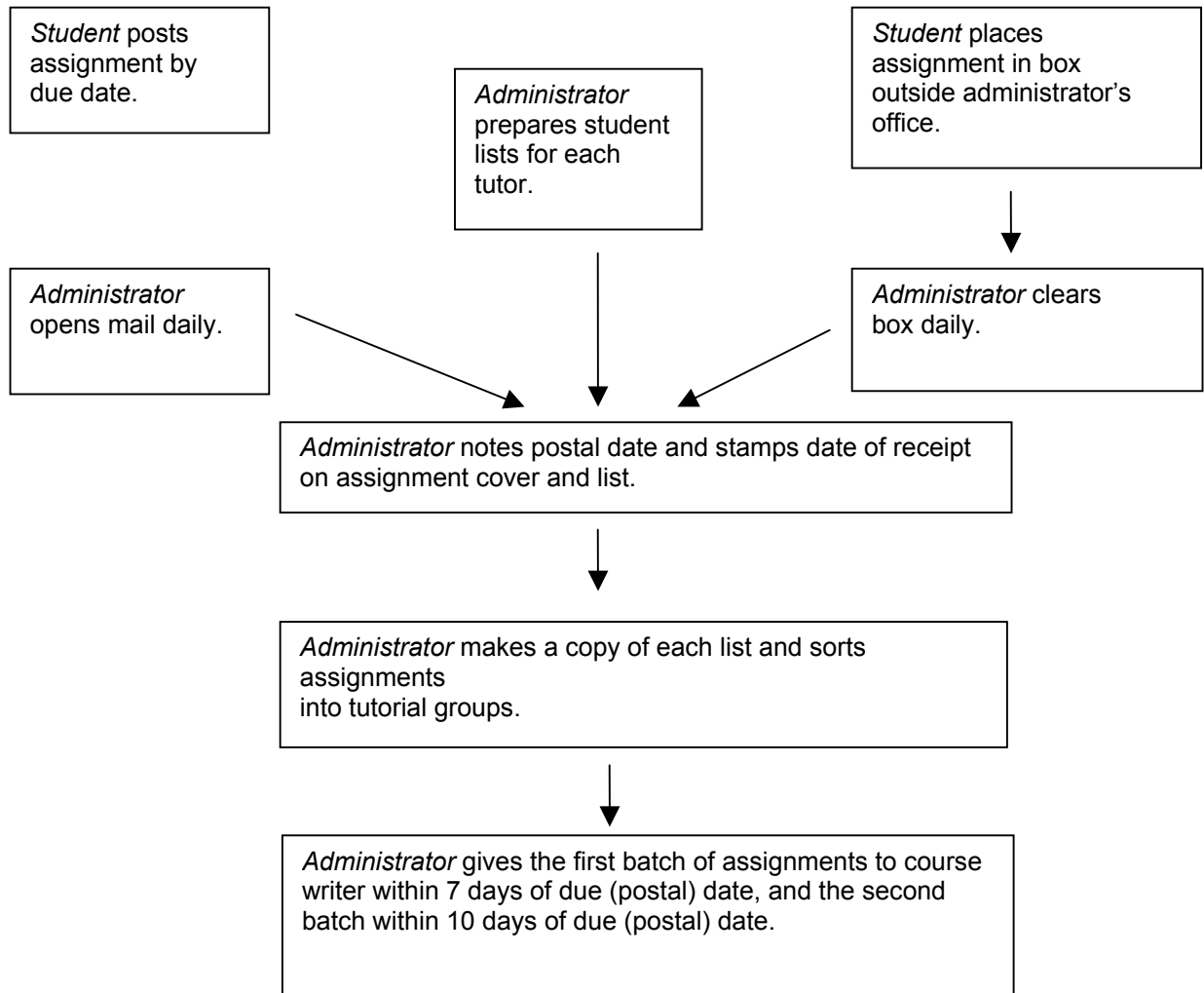
The assessment process was reviewed in the following way on 9 September with the course co-ordinator, the course writers, the administrator and the chair of the Curriculum Committee.

- Discussion of possible categories for assessment process review of the Flexi-B. Ed.
- Summary of distinct stages in the process on cards (Where there were differences between the various courses, these were noted).
- Noting of problems on different coloured cards
- Noting of actions to be taken to improve process on cards of a third colour

In the end, SAIDE drew up a flowchart of each of the processes for the management of assessment in the programme. An example of one of them appears below as Figure 1.

Figure 1: SAIDE flowchart of assessment management

Submission and receipt of assignments



12. Information Dissemination

Criterion

The education and training services of the educational provider are effectively and accurately promoted in a variety of ways.

Elements of the Criterion

- 12.1 The publicity provided for each programme is accurate and sufficiently detailed to enable applicants to make an informed choice. (The following is a suggested list of such information: target learners, entry requirements, aims and learning outcomes, content, learning material, teaching and learning activities, scope of programme, learner support services, assessment and accreditation procedures, price, payment conditions, right to return course materials, recommended time limits for completion, and terms regarding interruption/postponement).
 - 12.2 In the case of programmes using electronic methods, the learner is informed regarding access to technologies used in the programme, the technical competence required, and the nature and potential challenges of learning in the programme's technology-based environment.
 - 12.3 Employers and others who enter into collective agreements regarding education or training have received sufficient and correct information about the content and outcomes, entry requirements, implementation and aims of the programme.
 - 12.4 The provider's advertisements are truthful, objective and informative and meet the clients' needs.
 - 12.5 In the case of public private partnerships, public partners monitor the advertisements of private partners to ensure alignment.
 - 12.6 Information about programmes reaches as many as possible of those who can be expected to have a need or use for these programmes, given limitations imposed by resources and available information channels.
 - 12.7 The institution uses effective learner recruitment, selection, support and development procedures to ensure that sufficient numbers of adequately prepared learners enter and succeed in the programmes. These strategies form part of the institution's management of information system and are subjected to institutional cyclical reviews.
-

12. Information dissemination

A key issue in SSA as reflected in discussions at the DEASA workshop on 4 October 2003 at UNISA is the lack of advocacy around distance education in the region. As the report from Botswana indicates:

Advice and counselling should be availed to learners for their better understanding of what DE involves, so that they do not make wrong choices of what to study through DE programmes.

Information dissemination and marketing are difficult in rural areas. Because of the shortage of resources and information in rural areas, many learners are vulnerable to misinformation. Accurate and honest information about scope, requirements and benefits becomes essential.

The scope of a programme would include the outcomes and the content and the assessment. Requirements might include fees, but also hidden costs, such as transport to contact sessions, accommodation and purchase of additional material. Benefits might include career pathways, employment or promotion possibilities, or simply personal enrichment.

Critical success factors

Information about the programme is communicated truthfully, effectively and in ways, which make it easy for learners and other interested parties to access and understand the scope, requirements and benefits of the programme.

- Information about the programme is produced using various media and communication channels to ensure that marginalised learners (such as those living in remote areas) learn about the programme.
- The information provided is accurate and sufficiently detailed to enable applicants to make an informed choice.

Example one: the difficulties of information dissemination

In the process leading up to the implementation of the NPDE in Limpopo Province, the Department of Education, the South African Council of Educators, and the Education Labour Relations Council co-operatively engaged in the recruitment of teachers. Brochures and application forms were printed for distribution to schools in all regions and districts. However, the system did not work, and most of the applications came from teachers relatively close to the two universities.

The tables that follow³ indicate the usual trend in rural areas; those students furthest away from the centre, who should be most diligently targeted for distance education programmes, tend to be the most neglected.

Table 2: Relationship between students enrolled and distance from learning centre: University of the North

District	No. of students	Average distance from centre (kilometers)
Mankweng	92	30
Polokwane	92	80
Apel	1	140
Bochum	111	160
Mogodumo	49	160
Mahwelereng	98	170
Zebetuela	30	170
Konekwena	79	180
Bakenberg	19	200
Palala	2	200
Sekgosese	3	200
Bohlabela	10	240
Magakala	37	240
Nebo	62	240
Thabina	7	240
Warmbad	3	250
Sekhukhune	39	280
Dennilton	25	300
Mkhuhlu	3	540
Bushbuckridge	7	580
Acornhoek	2	620

Table 3: Relationship between students enrolled and distance from learning centre: University of the Venda

District	No. of students	Average distance from centre (kilometers)
Thohoyandou	237	30
Mutale	61	80
Vuwani	129	80
Malamulele	17	130
Hlanganani	60	150
Nzhelele	20	170
Soutpansberg	103	180
Giyani	8	200
Missing	72	200
Tshitale	13	280
Sekgosese	77	300
Dzanani	38	300
Musina	4	400
Tzaneen	3	430
Bolobedu	31	430
Phalaborwa	8	500

The NPDE also provided examples of the difficulties of communicating accurate programme information in rural areas. People tend to rely on word of mouth rather than printed information, even if they do have access to it. So the experience of the Limpopo NPDE was that many students outside the target audience applied. The programme was

³ Information prepared for the organisation of school visits in July 2002.

targeted at school teachers in the General Education and Training band, but Further Education and Training band teachers (even some from technical colleges) applied. The programme was targeted at under-qualified teachers, but teachers with degrees applied.

Example two: the need for documentation of distance education programmes in francophone African countries

Information dissemination is not simply a matter of communication with the target audience. It also involves other stakeholders, such as other providers in the country or the region, national Departments of Education and so on. In a research visit to study distance education in francophone African countries, Stephanie Matseleng Allais was struck by the lack of information about distance education projects even within the same country. This is not simply a matter of failing to provide information for public dissemination. It is a result of not documenting the work that is being done. Allais gives an example of the Radio Television Scolaire which now provides news of educational matters, rather than the full-scale educational programmes in Senegal (Allais 2003):

The station director, who took over the institution subsequent to termination of the programme, has no written records of the project. This means that, except for the reports of various aid organisations, there is no institutional memory of this important project, nor is there any analysis of its strengths and weaknesses, the reasons for its closure, and the role for educational radio and television in the future. One of our research recommendations was that assistance needs to be given to existing and planned projects to document their experiences.

13. Results

Criterion

The educational provider fulfils its mission and the individual programmes achieve valid teaching and learning goals in cost-effective ways that have a positive impact on society and meet the needs of clients and national priorities.

Elements of the Criterion

- 13.1 The educational provider is fulfilling its mission and attaining its transformation goals.
- 13.2 Learners are attaining the intended outcomes specified by the provider in the design of the programme. Expert peers/professional bodies are satisfied with the relevance and quality of learning achieved by learners on the programme.
- 13.3 Learners and recent graduates are generally satisfied with the programme (in particular with learner support and assessment practices) and its staff.
- 13.4 Employers/the professions/the community (as appropriate) are satisfied with the quality of the graduates from the programme.

- 13.5 The programme team is satisfied with the leadership and management of the programme, as well as the resources and facilities allocated to them to run the programme.
 - 13.6 Staff is all involved in a co-ordinated way in continuous improvement of the programmes, courses, course materials, administration and support services.
 - 13.7 Sufficient numbers of learners complete the individual programmes and courses successfully to justify the cost in time and person power for the design of the programmes, courses and learner support system. Pass, throughput and retention rates are monitored.
 - 13.8 The provider has financial results that afford the learners a reasonable prospect of completing their studies, and sufficient surpluses to ensure the future development of products and services.
 - 13.9 Programmes are achieving equity in access, retention and success rates for graduates in terms of the requirements of the relevant authorities.
 - 13.10 The feedback and results of the programme review/evaluation are used to effect improvements in the programme's design and delivery and to develop further the educational expertise of academic staff.
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Results

One way in which the success of a distance education programme is judged is on the basis of throughput rates. In the SSA, as in distance education programmes worldwide, completion rates (i.e., pass rates on individual courses) are generally relatively unproblematic, but throughput rates (the number of originally enrolled students that complete the whole programme successfully) are generally low. Low throughput rates are predominantly but not exclusively in longer programmes (degree programmes), and in “difficult” programmes such as a Bachelor of Science. There is an argument for being lenient on distance education programmes with regard to throughput rate; the opportunities for flexibility, taking individual courses rather than the whole programme, for “interest,” and the strains of part-time study could account for higher dropout rates than are customary in full-time study. However, a number of other factors could also be responsible for low throughput, including the following:

- Inadequate learner support
- Admissions policies that are too open, allowing access to programmes to students without the necessary background to succeed in them
- Course materials that do not teach properly
- Insufficient formative assessment and/or little feedback on assessment

A second point with particular relevance to rural programmes is that “results” are judged not only in terms of the provider, the individual learner or society at large, but also in terms of the impact on the particular community in which the programmes are offered.

Critical success factors

The programme achieves valid teaching and learning goals in cost-effective ways that have a positive impact on the community and individuals within the community in which the programme is offered.

Example one: building individuals and communities at the same time

A number of educational programmes offered to people in rural areas have the effect of removing people from their rural contexts rather than providing personal growth and employment opportunities where they are. These programmes, therefore build individuals, but at the cost of the communities in which they are located.

In a proposal for a new programme for the classroom-based training of Foundation Phase teachers, the University of Natal and SAIDE have developed an approach that has the potential to build individuals and communities at the same time:

The main qualification for the initial training of teachers, the four year Bachelor of Education will not, on its own, address South Africa’s teacher training needs, particularly the needs of potential teachers in rural areas. It is too long, too expensive, and is likely to alienate people from the places from which they come. We need an alternative strategy for the training of teachers that offers students opportunities for personal development and employment, but does not draw them away from where they are most needed and from where they will be able to contribute the most. An approach to teacher training that focuses on and supports trainee teachers in the school community could very well re-value teaching as a career in rural areas, where there are few employment opportunities.

The programme...is an alternative way of training teachers that brings them into classrooms quickly while at the same time not compromising on quality. It is designed to reach large numbers, but at the same time to provide physical, practical exposure to good models of teaching. Instead of only giving teachers knowledge and skills for their teaching, it also provides them with the resources and tools to do an effective job.

The programme, we believe, will also be affordable to the students, to the provider, and to the Department of Education. Though designed for a particular province, it can be re-versioned for other provinces, so that there are national economies of scale (SAIDE/University of Natal 2003).

When this programme is implemented and evaluated, it will be important to investigate its contribution to populating the schools in rural contexts, and contributing to a culture of teaching and learning.

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Appendix

Critical success factors in the use of ICTS for quality DEOL delivery in SSA

Introduction

Internet access has grown rapidly in Africa as a whole, and while only two countries had local access in 1996, by April 1999, only the Republic of Congo (Brazzaville), Eritrea and Somalia were still without a local Internet service (ECA 2000).

Research studies based in sub-Saharan Africa (SSA) found that some significant educational goals were achieved when ICTs played an integral part in the education process. For instance, students who participated in Internet-based learning networks showed increased motivation, a deeper understanding of concepts and an increased willingness to tackle difficult questions. While ICTs *may* provide access to high-quality learning resources, maximise the scarce teaching resources and improve the curricula for learners, there is the overall challenge of how SSA education institutions can measure and evaluate the added value and impact of ICTs on teaching and learning performance. Increasingly, though apparently to a limited degree, ICTs are being adopted for the delivery of distance education and open learning (DEOL) programmes in particular. There is some concern, however, that the mere introduction of ICTs is in itself is seen as a quality improvement, without sufficient attention being paid to the use to which the technologies are put. This raises the central question: What criteria should be used for undertaking an evaluation of ICT usage?

Role of ICTS in Distance Education and Open Learning (DEOL)

ICTs are expected to have a rapid and pronounced impact on the structure and roles of DEOL programmes in SSA countries. Advances in information technology have given an added impetus to DEOL programmes, in comparison to the cumbersome and time-consuming postal system-based correspondence learning. ICTs make it possible to reach individual learners located in, and operating from, isolated or remote education institutions. These technologies allow for access to information and knowledge in a flexible, inexpensive, rapid and highly independent interactive learning environment. Additionally, the ability to link individuals and groups of learners via local networks not only simplifies the management of computer-based learning, but also introduces the possibility of computer-based communication within an institution – nationally, regionally and globally – and the nurturing of communities of practice.

Regional Trends

A recent workshop on ICTs in African Schools organised for practitioners and policy-makers (Gaborone, Botswana, 27 April to 2 May 2003), focused on the experiences of eight countries involved in a regional collaborative ICT programme: Botswana, Cameroon, Egypt, Ethiopia, Mali, Senegal, South Africa and Uganda. The programme targeted establishing and developing an ICT-based African Teachers' Network through the implementation of a teacher training strategy.

Clusters of critical success factors (CSF) in the application of ICTs were identified at this workshop, and although they were not specifically targeted at DEOL provision in these countries, they can be regarded as being applicable to both (contact) school-based and DEOL-based modes of provision. Several generic regional (SSA) level CSF have been identified as follows:

- Matching educational investments in ICTs with efforts to build and strengthen training capacity and support in the effective use of these technologies.
- Responding to the dramatic increase in the number of technology-based models currently available for developing and delivering educational programmes.
- Understanding and identifying the specific requirements and conditions for integrating ICTs into curriculum design and development.
- Proposing effective ICT-based educational solutions that are relevant and implementable within SSA educational contexts at all levels.
- Addressing the issue of sustainability of ICT programmes. This implies continued training in order to build capacity through the development of a critical mass of trained teachers who are able to keep abreast of the ever-changing nature of ICTs.
- Ensuring that application of ICTs to curricula design and development is flexible enough to absorb the disruptions caused by incompatible and/or expensive hardware, software, and technical support, particularly in remote or isolated schools and learning centres. Nevertheless, it has been observed that the positive outcomes of integrating ICTs in the curricula far outweigh the drawbacks. For instance, ICT application has great potential for facilitating DEOL content delivery, as well as engendering more effective teaching and learning in schools.

Critical success factors (CSF) for ICT usage

Policy-related CSF (umbrella ICT policy issues)

One main objective for promoting the use of ICTs in the delivery of DEOL programmes in SSA is to provide institutions of learning with sustainable solutions for mobilising the necessary technologies, educational resources and skills to prepare students and teachers to enter into and operate productively in the information age. At the level of policy, clusters of CSF have been identified as:

- Assessing the value added by ICTs in education. Have they made (or can they make) a difference to the role of education in development? What is the degree of relevance and impact of ICTs to education in Africa? How can they contribute and assist in bridging the “digital divide”? As posed at the Botswana workshop, “How can we speak of the use of ICTs in education in Africa when many of our schools lack basic educational infrastructure – basic text and exercise books, electricity or even chalk? Some 50 million African children in 2000 had no access to primary and secondary education.”

- Strategies, mechanisms and frameworks within which ICTs can constitute an increasingly central part of the curriculum in an age where learning, knowledge and their application are increasingly motivated and driven by technology.
- The critical need for education policy-makers to be clear about the specific goals of an ICT initiative. The basic policy assumption is that governments are prepared to support schools with adequate resources and develop appropriate curriculum frameworks, in order for national policy enactments on ICTs to increase the impact of educational technologies on teaching and learning.

Some specific policy-related CSF in this respect are:

- Developing a national ICT policy and building an ICT-friendly school environment
- Addressing the need for teacher preparedness including engendering a positive attitude towards ICTs and their use and application in the classrooms
- Ensuring that teachers get the required ICT training and follow-up support
- Encouraging senior education managers to be enthusiastic about ICTs
- Motivating sustainable teacher development and retention in SSA schools, to enable continuity and sustainability of ICT programmes
- Specifying the role of ICTs within the curriculum, and addressing challenges of integrating ICTs into curriculum design and development, and elaborating policy-based strategies for their integration
- Inviting and facilitating all stakeholders to discuss issues of access to technology and to learning resources, and how to contribute to their availability

CSF related to the teaching and learning environment and institutional culture

Introducing ICTs as an integral part of the teaching and learning process in the classroom is linked to the attainment of several educational goals such as:

- Improving and enhancing teaching and learning
- Developing students' learning skills considered essential in the prevailing working environment
- Increasing motivation and incentives for teaching and learning
- Promoting student-centred learning
- Stimulating creativity and collaboration

A new understanding is required on the role of, and challenges posed by, ICTs to institutional culture, and to the teaching and learning environments and practices. In this respect, the CSF are associated with the need to refocus on:

- Curriculum content versus curriculum process
- A critical examination of traditional pedagogical approaches
- The role of teachers/instructors in terms of, for example, their preparedness, level of ICT skills and knowledge, attitude towards educational technologies, etc.
- Whether ICT-related technologies engender and support the cognitive processes involved in teaching and learning

- How ICTs can facilitate learners to gain deeper insights into, and understanding of educational content and its application in their working and living environments
- ICT-related assessment and evaluative frameworks, procedures and processes, in terms of what is measured and how it is measured. Evaluation within an ICT delivered curriculum “tends to emphasise assessment of developing ways of knowing rather than the attainment of states of knowledge.” Criterion-referenced and achievement-based assessments are more consistent with this approach, as opposed to the commonly employed alternative methods of standardised tests, external examinations and norm-referenced testing.

CSF associated with teachers and their roles

CSF related to the above stem from the urgent need to train and develop a critical mass of teachers knowledgeable in ICTs in SSA countries. This requires the upgrading of teachers’ basic skills and knowledge in the use of ICTs including practical “how to” knowledge and experience in using and operating technologies to support teaching and learning. Teachers should possess competencies that enable them to integrate ICTs into the curriculum, and to facilitate the introduction of new and effective forms of teaching and learning. Core concerns in this regard include:

- Unrealistic or contradictory teacher expectations and visions
- Inadequate preparation of teachers for ICT-based instruction
- Inertia and resistance from teachers themselves
- Constraints associated with pedagogical contradictions and conflicts

However, there are more systemic issues within which the above constraints reside such as:

- In most SSA countries teachers at the primary and secondary levels seem reluctant to accept ICT responsibility before mastering computer literacy skills and before demonstrating a high degree of confidence in the general use and application of the requisite skills and aptitudes.
- Teachers who have become used to and familiar with textbook-based pedagogical approaches are acutely challenged to shift from the traditional teaching paradigm and to embrace a more interactive and less rigidly structured teaching and learning environment.
- Teachers need to develop a state of preparedness in order for them to keep up with the continually changing nature of ICTs.
- The availability of apparently unlimited and ever-increasing volumes of information on the Internet poses the risk of “information overload,” sometimes making it difficult for teachers to select the relevant, useful and applicable information. Since teachers are responsible for directing and counselling students on proper access to quality on-line information, they need the ability to discern, determine and sift the information available from the Internet, so that they can direct, guide and evaluate student use of the wide range of literature sources which have been precipitated by the “free” access to information.

CSF in the integration of ICTs into the curriculum

SSA educational systems face two basic, often contradictory and competitive objectives in relation to the target of introducing and integrating ICTs into school curricula, namely:

- Developing students' ICTs skills
- Using ICTs for the achievement of more effective learning and teaching in schools

The available literature focuses primarily on CSF associated with attaining the objective of integrating ICTs into the curricula, and seven CSF in relation to this objective have been identified:

- Access to technology and to learning resources
- Provision of resources for implementing the ICT-based curriculum
- Teachers' preparedness including positive attitudes towards using ICTs in the classroom
- Use of ICTs for more effective curriculum content development
- Use of ICTs for more effective evaluation and assessment
- Determination of the appropriate educational level(s) at which to introduce and integrate ICTs into the curriculum

The emphasis on access rather than the ways in which ICTs can be used is problematic. It suggests that a further critical success factor should be:

- A clear curriculum plan and clarity on the ways in which particular ICTs will be used to meet curriculum goals.

The context of use plays a significant role in determining the extent to which ICTs are used appropriately to achieve curriculum goals, as explored in the following sections.

Country-specific CSF: The Botswana ICT initiative for schools

The policy dimension

There is discordance between policy statements and goals in the face of the reality of actually addressing and meeting those goals. ICT education in Botswana is based on the 1994 Revised National Policy on Education (RNPE), which made a number of recommendations for all the different levels of education namely:

- **Primary school policy goal:** Computers, in particular should constitute some of the equipment in the proposed resource centres for primary schools to ensure early exposure to computing as a learning resource.
- **Community junior secondary school policy goal:** All students at junior secondary should be given a computer awareness course to enable them to use computers for everyday life activities. Also, to develop in all children computer literacy and readiness for the World of Work, each student should take a basic computer awareness course.

- **Senior secondary school policy goal:** All senior secondary school teachers should acquire computer literacy and the schools should be allocated enough computers to enable all students to develop computer skills.
- **Tertiary-level policy goal:** The teacher training curriculum should be diversified to meet the needs of the new three-year junior certificate. It should include training of secondary teachers with a commercial subject, including computer studies as one of the teaching subjects with emphasis on pre-vocational preparation.
- **Targeted outcomes – infusion strategy:** Two teachers per school to be trained, who in turn would start training other teachers. Eventually, a critical mass of teachers with basic ICT competencies would *infuse* computer skills through their normal lessons. Further, all heads of participating school clusters would also go through some ICT-related professional development to ensure they were able to take informed decisions on the running of the ICT programme.

General achievements of the national ICT policy initiative

The implementation of the RNPE started with a pilot construction of computer laboratories in all secondary schools. Feedback from the pilot formed the basis for identifying the platform for schools to achieving the stated goals and objectives, primarily through provision of equipment to schools.

Overall critical success factors

All the identified pilot schools could only start the programme when the equipment was made available.

Even though the computer awareness programme was very popular in schools and on the whole achieved intended goals, there was a gap in terms of providing the requisite research skills and also furthering the acquired skills (ICTs in African Schools 2003).

Collaborative arrangements: To fill this gap Botswana became part of a collaborative project in 2000. All the schools received 20 computers, a server and a network with a switch. Computer equipment is now available in all government and government-aided secondary schools in the country, without exception. Workshops were organised to provide teachers with basic computer skills (Phase 0 – Computer Literacy), after which they would go back to their schools and train other teachers.

CSF for the infusion strategy

- Implementing the “infusion strategy” as stipulated by some of the ICT programmes/projects being undertaken
- Adoption of the infusion strategy with regard to teacher training since a critical mass of teachers has yet to receive or acquire the requisite ICT skills, subsequent to which they in turn would act as trainers of other colleagues and students. Additionally, the trained cohort may not possess the requisite levels of ICT confidence for training their colleagues/students. Others may also not possess enough confidence to voluntarily take their lessons to the school computer laboratory for ICT integration.

- Ensuring that ICT-trained teachers can acquire confidence and competence in the application of ICT skills for instruction and delivery of their lessons.
- Integrating ICT technologies and skills into teachers' day-to-day teaching and administrative responsibilities.
- Ensuring trained cohorts of teachers take full advantage of the immense opportunities open to them, to collaborate and share experiences with a network of teachers in their own country as well as with networks in the other 21 developing countries in both Anglophone and francophone Africa involved in the collaborative ICT initiative.
- Engendering an ICT-based institutional culture, in terms of how schools can become creative and innovative learning centres, as a result of having ICT-competent teachers on their staff. In relation to this, ensuring their staff and students can take full advantage of the world open to them to communicate and share ideas with colleagues from different countries without having to travel there, thereby building and developing regional ICT capacity.
- Helping teachers and students to cultivate and develop the habit (institutional culture), of frequently accessing and using the Internet as a research engine to look for and obtain new information, and related to this, adopting frequent use of e-mail and Internet as modes of communication that will help them broaden and deepen their ICT knowledge.
- Facilitating the application of ICT skills and competencies that eventually lead to teachers and students becoming independent learners.
- Ensuring education administrators take full advantage of ICTs to facilitate and enhance their work, such as lessening their administrative tasks and load of manually executed practices, such as typing, record-keeping, etc.

There are also issues about the level(s) at which these goals are pegged. At times, they can be pitched at too low a level for them to have significant impact, as the following concern demonstrates:

Applying their newly acquired skills to various aspects of school life, [such as] designing and writing certificates for prize-giving day ceremonies ...and engaging in fundraising projects for the school like designing programs and various types of cards (ICTs in African Schools 2003).

Such concerns are clearly on a different level of challenge from attempting to nurture the introduction of ICTs in ways, which cause teachers to critically re-evaluate their pedagogy!

CSF for improving teaching/learning through ICTs

The report on the Botswana case study indicated that the ICT process in teaching learning had been approached from two dimensions: through provision of basic computer skills to learners, and through involvement of learners in collaborative projects through channels created by collaborative ICT-based arrangements (such as World Links and iLearn).

Both of these have shown signs of success even though there are invariably a number of challenges still to be addressed (ICTs in African Schools 2003).

The schools had been approached to create time for learners to be taught a systematic programme on word processing, spreadsheet and graphics. They were also given an opportunity to experience database creation. Where available, CD-ROMs were used to expose the learners to skills of interrogating databases and in the process gain research skills. Schools therefore produced timetables that enabled learners to spend some time in the computer laboratories for this purpose.

CSF for collaborative initiatives

ICT training has only been possible for small groups of learners, and although this in itself is a significant positive outcome, the Botswana policy on ICTs dictates that *all learners* should be exposed to basic computer skills. However,

This cannot be achieved through only collaborative projects as they are limiting. Collaborative projects rely a lot on Internet and e-mail and thus the question of connectivity becomes an issue (ICTs in African Schools 2003).

CSF for increasing level of participation

The ICT programmes/projects may be targeted at entire school communities, but this “systemic” approach may mask the specific needs of particular categories of participants, based on such attributes as gender, previously disadvantaged educational backgrounds, attitudes towards ICTs, etc.

CSF for maintenance of computers

This has been described as one of the “most critical obstacles,” which the following quotation from the Botswana experience underscores:

From the total of 150 computers received from the World Bank, 8 were not working and could not be repaired because the companies could not find the replacement parts. The remaining 142 were distributed amongst the 15 schools. This problem has been persistent as more of the refurbished computers get faulty and cannot be repaired. At present, an average of 3 refurbished computers per school is not working. Due to limited hardware, configuration options and technology differences these computers cannot be upgraded. This situation forces teachers in World Links schools to teach on different platforms (Windows 95, 98 and 2000). The Government bought four Hewlett Packards operating on Windows 2000 computers and the Chinese Government donated six Legends operating on windows 98. This made a total of twenty (20) computers per school even though some of the old Dells are no longer operational. To alleviate this problem, a network was installed and a server purchased for each of the schools... The government maintenance contract is also posing a problem as their policy is that computers which are 4 years old should be replaced (ICTs in African Schools 2003).

CSF for undertaking professional development of teachers through ICTs

The expected outcome is to provide teachers with ICT skills to assist, facilitate and ensure continuity and sustainability in the running of the programme. Some systemic

obstacles to the attainment of this outcome are said to be associated with a high turnover of the trained teachers, as they are sometimes transferred to other schools, which have no ICT equipment. Nor are such transfers pegged to the promotion of teachers to positions and levels where they might have continued access to a computer. This results in firstly, continuity and sustainability of ICT programmes becoming jeopardised. Secondly, the ICT initiative becomes crippled or throttled altogether, resulting in minimal or no impact. An even worse scenario of loss emerges when a trained head of school is transferred to a school without computers. In such a case, the ICT programme suffers severe setbacks, and sometimes collapses completely thereby affecting envisaged ICT capacities at several levels including:

- Corrosion of competence on the part of head(s) of school
- Loss of administrative and executive support in the previous school
- Loss of ICT opportunities in the new school for lack of infrastructure and equipment

CSF related to ICT connectivity

The dimension of how CSF are related to ICT connectivity is captured aptly in this quote from the Botswana workshop:

Internet connectivity has been a nightmare in all the schools, whether remote or not. This is mainly because of bandwidth as all the schools are connected through only a normal telephone line and only one computer, and are therefore unable to access the Internet. The solution of distributing access to more computers has been tried without much success. This is still under investigation especially after the purchase of the new servers. The other main problem with connectivity is the technical skills that the teachers possess. The teachers have not been adequately trained in troubleshooting and if anything happens to the Internet, they are unable to rectify the fault until the World Links technical officer comes around (ICTs in African Schools 2003).

Specific CSF for SchoolNet Africa Programme

The target of the SchoolNet Africa Programme is to establish an ICT-based African Teachers' Network through implementation of a teacher training strategy involving Botswana, Cameroon, Egypt, Ethiopia, Mali, Senegal, South Africa and Uganda. Teacher training programmes will be created by the teachers themselves for developing ICT skills adapted to their curricula. CSF related to teacher training and professional development through ICTs have been identified as:

- Need for appropriate and affordable training materials, as well as finding blocks of time for training of the teachers.
- Adequate financial resources: availability of financial resources remains a constant constraint, which can be partly overcome through partnerships and collaborative mechanisms to facilitate investments in ICTs.

- Clarity on the roles of ministries of education, the private sector and educational institutions. For instance, in Senegal the government is still reluctant to actively support large-scale ICT teacher training programmes, including the purchase of ICT equipment, thus limiting what can be achieved.
- Prioritising the introduction of ICTs: to some SSA governments, ICT adoption is not a priority in the face of the much more acute problems related for instance to poverty, eradication, the HIV/AIDS pandemic, etc.

Conclusion

It is clear that the introduction of ICTs can have a meaningful and positive impact on the quality of education provision in general and DEOL provision in particular. However, this can only happen when the policy and financial environments allow for adequate training and follow-up support (both in terms of user skills as well as issues such as the ongoing maintenance and upgrading of systems, hardware and software) *and* where ICTs are integrated into the curriculum in ways which encourage critical reflection on entrenched learning and teaching approaches. Unless both these requirements are met, there is the potential that ICTs are introduced in ways, which simply perpetuate bad educational practices and constitute a waste of valuable limited resources.

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