BACKGROUND PAPER 4c

Provider Readiness to Offer Programmes Using Distance Education and/or Electronic Learning Methods

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INTRODUCTION

The research for the Distance Education Task Team of the Council on Higher Education (CHE) has shown that there has been an increase in the number and scale of distance education programmes offered at predominantly face-to-face institutions as well as a great increase in the use of electronic learning methods. There is a concern that institutions are not preparing adequately for quality provision using these methods. The kinds of system-wide institutional changes and staff development required are not acknowledged resulting in inefficiencies, strain, and poor conditions for quality improvement.

The Higher Education Quality Committee of the CHE has a set of criteria which will be used by audit teams to judge whether or not providers with distance education programmes have the requisite systems in place. There are four separate distance education tables in the HEQC's criteria, with the following main criteria:

- The particular characteristics and needs of distance education are taken into account in the planning, development and review of such programmes.
- The particular demands of distance education are taken into account in the staffing arrangements of programmes.
- The institution has the necessary systems and guidelines in place to implement programmes at a distance.
- The policies and procedures for assessment take into account the particular contexts of distance education students.

However, if a provider needs guidance in the establishment of the required systems, then a fuller document is required. Providers using distance education/ electronic learning methods will need more detailed criteria, as well as some explanation of the additional requirements for distance education. In addition, programme accreditation teams could use this document to provide the necessary background for application of the criteria in the distance education tables in the Audit Criteria document.

It is also important that the fuller document deal with quality concerns in respect of export and import of programmes, both of which are increasing in South Africa. The criteria for quality distance provision should, of course, be applied equally to programmes being exported/imported, but there are additional considerations.

This document is based on *Criteria for Quality Distance Education in South Africa - 2003*. It is organised according to the 13 main criteria in that document. In each of the sections, a selection is made from the elements under the first twelve criteria in the comprehensive *Criteria* document and a rationale is given for the importance of this element for judging provider readiness to use distance education/electronic learning methods. In each case only the critical elements have been selected.

PROVIDER READINESS FOR THE USE OF DISTANCE EDUCATION/ELECTRONIC LEARNING METHODS

The full set of elements from which the selection of criteria in this document has been made appear in *Criteria for Quality Distance Education in South Africa.* For ease of reference, the numbering in the original document has been used in this document.

1. POLICY AND PLANNING

Rationale and systems

Use of distance education or electronic learning methods needs to have a basis in terms of the mission and goals of the institution and the needs of the target learners and the broader society. But more importantly, there needs to be a deliberate rationale for the use of distance education/electronic learning methods. For example, how will the use of distance education or electronic learning methods expand access to higher education, diversify the student body, or improve quality? Why will the use of electronic methods be better for the students on this particular programme than the use of print-based technology?

One of the reasons for the need for a conscious policy for the use distance education methods is that distance education needs to be conceived of as a system, with different elements harmonised to achieve the goal of student learning. Ad hoc arrangements may perhaps be possible for small numbers of remote students, but large scale programmes need properly organised teaching and administrative systems for ensuring that course materials are produced and delivered on time, for the management of teaching, learning and assessment, and for dealing with remote student admissions, communications and records.

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.

Prior to offering programmes of study by distance education, an institution 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.

Technical infrastructure and standards for collaboration

Because of the expense as well as the time needed for the development of programmes using electronic learning methods, providers are likely to feel a greater need to collaborate. In addition, the existence of the Internet and the growth of the knowledge society means that there is electronic information available from a range of sources. This means that providers have to become aware of the increasing need for standardised or at least compatible systems. However, the technical infrastructure needs to be fit for

purpose - there is little point in investing in expensive systems if they are not going to be sufficiently used. A critical element under this criterion is therefore:

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.*

However, the primary consideration in the purchase of technical platforms and infrastructure is fitness for purpose, and over-investment is avoided.

2. LEARNERS

Learner profiles

Analysis of the needs of the target audience and collection, maintenance and use of learner information are critical in distance education. Because the learners are not very often met face-to-face, an extra effort needs to be made to understand the varying contexts and needs of the learners, so that the programme and course can be tailored to meet their needs and give them a reasonable chance of success. Characteristically, distance education, particularly large scale distance education, is dependent on effective management of information systems for the storage, analysis and retrieval of the kind of information collected. Of course, this is not intended to absolve face-to-face planning of responsibility for similar planning.

If electronic learning methods are planned, the learner profile needs to include technology access as well as experience and knowledge of technologies required for participation in the programme (see the bold parts of the element below).The issue of technology access is critical particularly for the use of ICTs as is reflected under 4 below. For the argument about knowledge and experience of the technology, see the rationale under 7 below. The point of including these issues under learner profile is that this kind of information needs to be systematically collected for each learner - not simply for the group of learners as a whole.

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;*
- *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, physical handicaps or learning difficulties;*
- *resource factors - for example, place of learning, times available for learning, access to electricity, access to media and technologies, and financial resources for purchase of additional materials;*
- *experience and knowledge of the technology required for the programme; and*
- *success rates of past and present learners.*

3. PROGRAMME DEVELOPMENT

Cost structure of distance education

There are three areas of programme delivery in which distance education is much more costly than face-to-face education - course design and development, administrative systems, and learner support.

The investment in course/materials development is typically extremely heavy. This investment needs to be made upfront and then amortized over time as the materials are used by successive cohorts of students. The second heavy cost is as a result of the increased administrative infrastructure needed for distance education. Finally, the provider needs to ensure that it has the resources for employment of staff for learner support, and establishment of the systems for management of assessment and tutorial and/or other support.

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.

Selection of technology

Providers should be able to defend their choice of technology from an analysis of teaching, learning and administrative needs. Technology in and of itself does not effect educational transformation. It is a tool that can assist with the improvement of access and quality, but it needs to be appropriate for the user and the purpose.

Although the selected element below applies whatever the selected technology, it is particularly important in cases where there is pressure to use electronic methods
It must be clear that the use of electronic learning methods will best meet the purposes of the programme and the needs of the learners. In some cases, it will be print technology that will be most appropriate; in other cases, it is will be the use of the radio; and in other cases, it will be use of advanced information and communication technologies.

It is also important that decisions about purchase and use of technology are not only programme specific. The selection of technologies needs to take into consideration the

'needs, resources and capabilities' of the provider as well - choices must be aligned with institutional realities.

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.

Understanding the support and capacity implications of 'opening' learning

There is a need to balance openness and flexibility in the way that programmes are designed, with a concern, not only for the development of structured learning pathways, but also for the provision of opportunities for success. If entry to a programme is open, then support must be provided for those who do not have the required background to succeed. Often, in their enthusiasm to 'open learning', providers do not strike the balance sufficiently well.

There are likely to be strains on the staff as well as on the learners if distance education is introduced without proper planning. There is often the assumption that the numbers of distance education students in a programme can be increased almost endlessly. But a programme needs to have the staff and administrative infrastructure to manage large numbers. For example, the task of opening and sorting 200 assignments for a course 4 times a year is a very different exercise from opening and sorting 20 000 or even 2 000 assignments, where a whole department (and structured administrative systems) will be needed. Similarly, if contact sessions are to be offered, are there sufficient tutors to have class sizes of 20 or 30 and are there sufficient academic staff to ensure that they can moderate at least 10% of the assignments marked by these tutors?

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.

Numbers of learners enrolled on 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.

Preparing for export

The criteria for quality distance provision should, of course, be applied equally to programmes being exported, but there are additional issues. If a provider ignores the legal requirements relating to programme approval and delivery in the country of export, the learners on the programme may suffer, and the country's reputation for educational delivery will be damaged. This would also, of course, apply to the offering of full-time face-to-face programmes in other countries.

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.

4. COURSE DESIGN

Course design and learner workload

Often in shifting to distance education, providers think that they need to develop course materials, and then the work is done. However, very often they don't need to develop course materials at all. They can use materials developed elsewhere, but they do have to design a course around them. It is at the level of the course that the development for particular groups of contexts and target learners takes place. Materials on their own do not teach - it is the course that teaches: the structure of learning that is designed into and around the materials. This includes 'conceptual pathways to command of its knowledge, conceptualizing skills, and practical abilities; as well as educational strategies for helping the learner find his or her way through these pathways.'[1].

Part of consciously designing courses is assessing learner workload. Traditionally face-to-face providers have little understanding of organising workload for distance education students. They tend to rely on the number of lectures as a rough measure. When distance education methods are used, this measure can no longer be applied. A part-time distance education student can be expected to work 12 to 15 hours a week on a distance education programme for approximately 40 weeks per year - a total of 600 notional learning hours. This includes time for independent study from course materials, time spent participating in contact sessions or practicals, and time spent on assessment. If students are expected to do more than this in a single year, then either the course is overloaded, or the amount of work required is insufficient to merit the credits awarded. These kinds of calculations are, of course, approximate, as they rest on the necessarily imprecise '*notional* learning hours'. In addition, programmes will differ in their demands. However, this does not excuse the provider from considering - from the point of view of the **learner** - whether or not the workload is reasonable.

The elements of the course and the relationships between them are consciously planned.

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.

[1] SAIDE, 1996:85, quoted in *A Distance Education Quality Standards Framework for South Africa* (Pretoria: Directorate Distance Education, Media and Technological Services, Department of Education)

Contextualisation of exported/imported materials

Even when a course is used in a different region in the same country, there is a need for adaptation to the new context. Providers exporting or importing programmes might try to avoid the costs involved in adaptation, but it is necessary. For example, a programme on health management from the UK may be broadly appropriate for the South African context, but sections in which the health system is described may need to be adapted. Similarly, baseline knowledge of financial management required by health managers is lower in this country than in the UK, and greater effort would need to be made to ensure that learners had a chance to achieve the required learning outcomes in that particular area.

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).

Sufficient technology access for effective learning

In addition to consideration of the teaching, learning and administrative needs prior to the selection of technology, the issue of access of learners to the selected technology is crucial. Although important whatever the technology considered, it is particularly important to consider when electronic learning methods and the use of computers are being planned. Access to the relevant technology has to be sufficient to make possible a continually evolving skill in the use of the technology for learning and for life. For example, some questions that would need to be asked about web-based courses, or courses that require participation in online discussion are: Can the learners afford an internet connection? Can they afford the telephone costs of working online? Is their access to the internet only through work or through someone else's computer? Will they be able to access the web for sufficient time at times that fit into their life schedule? If they don't have enough access and practice, training in the use of the technology will not have the desired effect.

Choice of media and technology is justified in the light of the aims of the course, required learning outcomes, learner needs, capacity to access and use the technologies, the physical features of the teaching sites and available facilities and services.

5. COURSE MATERIALS

Course materials development plan

Since materials need not only to be developed or evaluated and procured but produced and distributed, lead time is needed as well as upfront financing. For materials development lead time needs vary between one and five years. For materials adaptation, the period could be less, depending on the extent of the adaptation. Expecting materials to be produced in too short a time is one of the main reasons for the low quality of much of the material that is on offer.

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.

Criteria for developing and reviewing materials

When shifting to distance education, providers need to understand that the course is the main way in which the curriculum is communicated, and that therefore the materials need to teach well and mediate learning in accessible ways. The individual elements listed above explain what it means for materials to teach well.

Materials are developed and reviewed in terms of the following criteria:

- *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.*
- *The content and teaching approach support learners in achieving the learning outcomes.*
- *Learner friendly introductions, linking and summarising passages motivate the learners and provide coherence to the materials.*
- *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.*
- *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 require.*
- *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.*
- *Active learning and teaching approaches are used to engage learners intellectually and practically, and cater for individual needs.*
- *Content is presented in the form of an unfolding argument, rather than discrete bits of information that have no obvious connection.*
- *The various elements of the course materials and different media are integrated, and the integration is clearly sign-posted.*
- *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.*
- *The overall technical quality of the materials facilitates learner use.*

Additional criteria for web-based materials

The criteria for the development and evaluation of course materials in general are the primary criteria to be applied to web-based materials. The additional criteria below are intended to deal with specific technical issues which the general criteria do not cover.

The service is speedy and reliable: it is easy to connect to the site, and the site loads quickly with a minimum number of crashed sessions.

- *Pages and text are designed for consistency, readability and attractiveness.*
- *The site is easily navigable, has a sitemap with clearly marked links, and the different elements integrate seamlessly with each other.*
- *The site is up to date, with minimum technical faults, and continuously under development.*
- *The site clearly displays its institutional links and acknowledges sources of material used.*
- *Support in the use of the various functions on the site is provided both in the site itself and from external technical assistance.*
- *The site encourages interactions with other learners as well as with the tutor/mentor.*

6. ASSESSMENT

Formative uses of assessment

This element firmly establishes the formative function of assessment. Although it is key to any educational programme, in distance education formative assessment is particularly crucial. This is because students with limited time often engage with materials mainly or only in relation to tasks set for assessment.

Assessment is recognised as a key motivator to learning, as an integral part of the teaching and learning process. It is used to inform teaching practice and to improve the curriculum.

Quality management of assessment

Distance education programmes are usually more large scale than face-to-face programmes. This necessitates the employment of a number of part time tutors for marking. The difficulties of consistency and accuracy are multiplied, and there need to be procedures for setting and maintaining standards. It is therefore very important to develop robust ways to ensure reliability.

Secondly, although helpful feedback on assignments is important in all courses, in distance courses, it is often the main means whereby tutors communicate with individual learners. The feedback should take the form of 'teaching on assignments', and staff usually need guidelines and training to help them do this properly.

Thirdly, because of the distant physical location of the students (and particularly if large numbers are involved), processes for the collection, marking, moderation and return of assignments are complex, and need to be appropriate to the contexts of delivery. For example, expecting the postal system to be reliable enough for rapid turnaround of assignments is usually not feasible.

Where part-time tutors are involved in assessment, they are trained for the task, and academic staff monitor and moderate both formative and summative assessment to ensure reliability and fairness.

Marking procedures for both formative and summative assessment ensure consistency and accuracy of marking and grading, and the provision of helpful feedback to learners.

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.

Contextualisation for export

As with courses and course materials, the assessment activities in exported programmes are often designed in ways which are difficult for learners who come from different contexts and/or countries. Consideration needs to be given, not only to the instructions for the assessment, but also to the content. Very often foreign learners do not succeed because, although they know and understand the work, they do not recognise the examples used, or are alienated by the assessment procedures.

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.

Ensuring security of personal information and security of identity

Although secure assessment systems are an issue in distance education generally, in online contexts, the issue of authenticity of the assessment work that learners submit is a particular issue. Bruce King (2003:14) suggests a range of strategies to deal with this, including

- communications between student and teacher should be password protected;
- assessment tasks should be constructed in ways that make it less easy for learners to pass off other people's work as their own.

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.

7. LEARNER SUPPORT

Understanding of learner support

Learner support in distance education is very different from the notion of academic development in face-to-face provision. Academic development is essentially the provision of support for under prepared students, and is fore grounded in policy and quality documents because of the need for greater access and equity. In distance education, learner support is the support given to **all** learners to help them achieve the outcomes of the programme or course. It includes three interlinked areas - support

through the teaching and learning strategies in the programme, support through counselling and the addressing of personal or social concerns, and administrative support through information, as well as provision of facilities and equipment. If providers are offering distance education programmes, learner support has to be seen as an integral part of course design for all students, rather than as an add on extra for some.

The main criterion for learner support reads:
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.

Systems for learner support

Because of the demands made on students to study independently, often through balancing competing demands of work, study and family, the throughput and completion rates in distance learning are sometimes low. Particular effort needs to be made to provide adequate learning support, to monitor student progress, and to intervene proactively for at risk students. To do this, there is a need for reasonably complex information management systems that can track learner participation as well as performance.

However, it is in the offering of decentralised support that face-to-face and distance programmes differ most clearly. In face-to-face programmes students meet with tutors and peers at a central location. In order to give remote students similar opportunities, distance education programmes usually have to organise decentralized support. In some programmes (for example, programmes which have a block release system for contact sessions and/or arrange residentials at the main campus during vacations) it may not be necessary to organize decentralized support, but generally, ensuring that learners have a reasonable chance of success in a programme means organising for them to have tutorials/contact sessions close to where they live and/or work, so that they can engage with their peers and tutors on a regular basis. The human resource and management implications of this decentralised support are considerable. Customarily, local part time tutors are appointed, and the provider needs to have mechanisms for selection, appointment and payment of suitable tutors, as well as for the monitoring of part-time staff.

- *Learner performance is monitored and learners at risk identified. Timeous educational intervention is provided for such learners.*
- *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.*

Tutors

If part time local tutors are appointed, it is critical that the provider builds in enough time and money to train them thoroughly. In large scale distance education programmes, it is not only the learners that need development: tutors need orientation and training as well. Tutors (who will not have designed the course or programme themselves) need to understand the course and the materials, as well as be trained in assessing and commenting on learner work. If the tutors are not trained and monitored properly, they could undermine the curriculum thrust of the programme. If they are trained properly, the programme could have an impact not only on the individual learners on the programme, but on the educational levels in local communities as a whole. Would the same statement not apply if groups of learners from the community successfully complete the programme?

Tutors are selected and trained for their role of mediating learning from the course materials. The training places particular emphasis on equipping tutors to analyze and assist learners with language and learning difficulties.

Learner orientation to technology and capacity building in technology use

Learner orientation to the use of the technology required on the programme is critical. Even relatively sophisticated learners take some time in order to adjust to teaching and learning methods with which they are unfamiliar. This orientation does not imply basic training in the use of ICTs. The provider does not have the responsibility to develop ICT competence in the learners - unless it is regarded as an integral part of the programme and incorporated into the learning outcomes. However, if ICT competence is assumed, the learners should be informed upfront, so that they do not apply for the programme without the required competence (see also under Information Dissemination below).

- *Learners are carefully oriented to the teaching and learning methods on the programme, particularly if electronic methods are used.*
- *Where appropriate, the development of competence in the use of information and communication technologies is built into the learning outcomes of the programme.*

8. HUMAN RESOURCE STRATEGY

Staff development

One of the biggest problems in shifting to distance education is that it is often assumed that the staff can suddenly take on roles and tasks for which they may have neither the aptitude nor the training. For example, it cannot be assumed that traditional academic staff have skill in materials development (particularly web-based materials development) - capacity in this needs to be developed in-house over time, or else bought in. In either case, there need to be special arrangements for financing.

- *Staff are trained, monitored, and supported for the specialized roles and tasks they perform, including the design, management and delivery of electronically offered programmes.*
- *Staff engaged in online tutoring and the moderation of online discussions are qualified and trained for the intensive engagement and direction which is required.*

Workload

When a programme shifts to distance delivery, the management very often does not acknowledge sufficiently the changed nature of the workload. In many situations, workload continues to be measured primarily in terms of contact hours with learners - whereas tasks such as course materials development or management of courses with large numbers of learners are extremely demanding.

It should be recognised that the use of electronic methods to deliver programmes will increase the absolute and per student costs of delivering education - all other things being equal. This additional cost will be felt particularly in human resources - in the time needed for development of web-based or virtual courses, for the time-consuming nature of online tutoring, and for staff development for the design, delivery and management of electronic programmes. *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.*

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.

The workload of staff involved in online support for learners is carefully monitored.

Administrative assistance

A big issue in the delivery of distance education is the increased need for administrative assistance. The relatively little amount of administrative work in the management of face-to-face programmes is usually managed by academic staff with secretarial assistance. The seniority of the academic determines whether or not he or she is entitled to a secretary. However, the systems involved in distance education, particularly for large scale programmes need to be designed and serviced by high level administrative staff. The number and level of administrative staff should be determined by the complexity and

quantity of administrative work, rather than by the seniority of the academic staff member/s who may be coordinating the programme.

The educational provider employs sufficient administrative and technical staff to handle the specialized tasks of registry, despatch, management of assignments, and administrative support.

9. MANAGEMENT AND ADMINISTRATION

Detailed planning

The planning of distance education is complex and needs to be done much more in advance than in face-to-face situations:

- The curriculum has to be developed upfront because materials need to be printed and distributed to students at the beginning of the course.
- The various teaching and learning and assessment strategies need to be coordinated.
- Often students from a number of different cohorts are passing through the systems at the same time.
- Registration often does not take place at a fixed time and place once a year.
- Methods and times of communication with students have to be planned beforehand because students are remote and communication systems often unreliable. If, in addition, the students are numerous, the additional costs of letters/phone calls indicating changes in plan can become prohibitive.

This complexity necessitates careful attention to times and dates for various activities.

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.

Communication

Communication with a dispersed student body is much more difficult than at face to face institutions, particularly if those students are in rural areas where the communication infrastructure is unreliable or limited. There are longer chains of communication, and a range of communication systems may well need to be tested before workable ways are found. In addition, because students are often working or need to complete their study at times that suit their domestic arrangements, it is necessary to consider workable times and processes for communication with academic and administrative staff. Telephone consultation hours cannot simply be restricted to office hours.

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.

Ensuring the predictability and reliability of technology

A critical issue in the management of electronic learning programmes is reliability and predictability of the technology. In print based distance education courses, failure to deliver course materials on time means that the teaching and learning cannot begin - the curriculum is not being delivered. In an electronic environment, if the technology does not work, the teaching and learning cannot happen. It is therefore crucial to ensure reliability.

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.

Materials production and despatch systems

In a distance education programme, the materials (course materials/study guides and tutorial letters) are the main means for communication of the curriculum. If the course materials are not delivered on time, the course has not started for the students. Efficient course materials production and despatch systems are critical for the success of a distance education programme.

The production and delivery of course materials is fast, accurate, and reliable. Where existing systems prove inefficient, creative alternatives are found.

Management of information

The fact that the student body is dispersed means that efforts to monitor student participation and progress need to be greater. There should also be systems to follow up those students that are at risk.

In addition, providers need to have ways to determine whether or not learners are active; for example, by submission of assignments or participation in contact sessions. Otherwise, although they are registered for a course or programme, the provider is not spending any money on them.

Records of course results and other management information can be analyzed to

- *Give completion rates for each group of learners*
- *Identify at risk learners*
- *Identify inactive learners.*

Finances

In large scale distance education programmes (500 students and above) economies of scale make it possible for provision to be cost effective. However, although some cross-subsidization across programmes may be necessary in order to achieve the provider's mission, often the provider makes no investment at all in the improvement of quality of the large scale programmes. These large scale programmes are simply used to make money to cover other expenses in the institution as a whole. Clear programme based

budgeting with regular financial reporting is essential so that resources can be tracked and used for quality improvement for the students whose fees are paying for the programme.

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.

10. COLLABORATION

Deliberate development of collaborative relationships

The use of electronic learning methods usually requires some form of collaboration. It is costly, and it is therefore critical to avoid unnecessary duplication, for example, of learning centres containing technological equipment or electronic course materials. An essential part of the process of setting up programmes using electronic learning methods should therefore be research into common technical platforms, the possibilities of sharing online courses and learning centres.

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 terms of research.*

Quality assurance for collaborative programmes

Usually in distance education a certain amount of collaboration is necessary - or at least outsourcing. It is very easy for the distance education organisation to lose control - appoint inappropriate partners or outsource pieces of work, and then fail to follow up and monitor the work. The provider needs to demonstrate that it has thought about both possible partnerships and outsourcing and how to manage and monitor it.

Public private partnerships represent a particular type of collaboration. In these sorts of partnerships, the temptation for the public provider is to leave too much up to the private provider, and not to maintain the oversight that is required. Very often these partnerships are determined at senior levels, and the people who actually have to do the work do not have the capacity and resources to maintain proper oversight. The public partner has to have the capacity to manage the quality of outsourced functions at every level.

The programme plan includes criteria for selecting partners and contractors and the means to monitor and evaluate their work.

In the case of public private partnerships, the public partner takes full academic and quality management responsibility, and ensures that student rights are protected.

11. QUALITY ASSURANCE

Quality management for export

The following element makes a similar point to that made under 10 above - but in respect of exported programmes. The increased complexity of offering programmes at a distance, particularly in other countries, or in remote areas of one country, often necessitates working with other organisations/individuals - for the preparation of course materials, for the delivery of learner support, for providing workplace support, or for staff development. The amount of time and management involved in this is usually underestimated. The provider that will eventually certificate the learners needs to keep control of the process and ensure quality delivery.

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.

Building monitoring into electronically offered programmes

In one way, quality assurance of electronically delivered programmes is more difficult as there are usually a number of partners, and the number of systems to monitor is greater. However, in another way, it may be easier: the technology can be designed to assist with the monitoring of programmes, thus facilitating quality assurance. However, these monitoring systems should be designed into the courses from the beginning. They cannot be afterthoughts.

> *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.*

12. INFORMATION DISSEMINATION

Recruitment systems

Economies of scale in distance education can only be achieved in distance education if sufficient learners are recruited and sufficient learners succeed in the programme. The provider needs to ensure that it has the systems to manage this.

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.

Learner awareness of technical and competence requirements

Particular effort needs to be made to ensure that learners know the expense, the technical requirements and the technical competence necessary for participating in electronically delivered programmes. Simply providing the information in written form may not be enough, as students might not understand, or might be over-optimistic about their capabilities. For example, many people claim they have internet access, but on closer enquiry, this turns out to be theoretical access to a work computer or a friend's email. It might be necessary to screen applicants more carefully prior to final selection.

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.