

CHAPTER ONE

1 INTRODUCTION: LIBRARIES AND DISTANCE EDUCATION

1.1 RESEARCH PROBLEM

The tested capabilities of distance education, some of which are hard for the conventional system to accomplish, have demonstrated that it is a viable educational mode. As there is an increasingly growing desire for further education, many countries the world over require competent educational systems that can handle the flood of students wanting to further their education. Unfortunately, the increasing aspiration of people for educational opportunities is not one that can be met by just increasing the number of places in the existing traditional full-time programmes. The infrastructures (which are capital intensive), including buildings that would be required, cannot be put in place overnight.

Coupled with the above Herculean task is the fact that many of the target groups would find it tedious if not impracticable to leave their occupational and domestic responsibilities to attend school. In order to satisfy the yearning of the people, a marriage of convenience, different from the traditional educational mode, has to be worked out between the members of the target group and the attainment of their educational aspirations. One viable option available is distance education. It is, then, no wonder that most countries of the world today are adopting distance learning as a complement to the traditional system at many of the levels of education. It is, therefore, not uncommon for distance education institutions at tertiary levels to operate using a single-, dual- or mixed-mode of delivery in most countries of the world.

From its small beginnings, distance education has produced tens of thousands of graduates, and continues to provide tuition to millions of students all over the world. For instance, according to a source cited by Keegan (1996), some institutional statistics compiled in 1995 on ten universities running distance education programme around the

world including the University of South Africa (UNISA)] revealed a total enrolment of 3, 417, 000 students. Prior to this, Keegan (1994) undertook a study of distance training in the then 12 member states of the European Union. He noted that “almost 2.25 million were enrolled in distance learning institutions” within the 12 member states that formed the then European Union.

Usually distance education has no known geographical barriers as its adherents/students can be found anywhere and everywhere – be it in urban or rural or non-metropolitan areas. There is one question that springs to mind as education is provided to students in the various parts of the world, particularly in developing countries. This is: how will these students be able to access needed library and information service to support their educational goals? This question arises when account is taken of the library and information practice associated with the known typical traditional system.

In the traditional face-to-face educational mode, the students physically go to the library to satisfy their information needs using a variety of formats to do so. It is obvious that the traditional method of dispensing library and information services may not be very relevant to distance education students. For the library and information services of today to function effectively in a distance learning environment, changes need to be made to past practices.

By the nature of distance education programmes, students are separated in time and space from their tutors, the educational institution and its components including the library. A library in any institution of learning is known to complement and enhance the quality of educational programmes. This accounts for library and information services being a necessary factor that has to be taken into consideration when an institution begins distance education programmes. It should be stated as a premise that the era when docile and immobile library and information services waiting for their inquisitive and aggressive student users to make their demands does not hold for the distance education milieu. If library services are to be effectively provided for distance learners, the nature of distance

education must be known, and ways and means of taking the services to this special clientele must be devised.

It can be justifiably claimed that computer networking, otherwise known as the WWW or the Internet, has contributed to an explosion of interest in distance education. It should be noted with great interest by those concerned that in many advanced countries of the world a great deal of emphasis is placed on the application of information and communication technology (ICT) to dispense library and information services. In these circumstances students do not have to physically get into the library or resource centre to make use of library services. Students can log in requests not only by mail, phone or fax but can also use free text email, direct dial-in and order from the library catalogue, or from forms mounted on a Library Home Page for 24 hours each day. Do these fascinating trends in the developed world have any bearing on distance learners in developing countries in general, or at the University of Botswana (UB) in particular?

The University of Botswana is an institution that operates a dual-mode educational delivery system - combining the traditional system with the non-conventional delivery mode. An outreach arm of the University - The Centre for Continuing Education (CCE) has been established and given the responsibility of taking the university to the people. How far has the CCE gone with the task assigned to it? Does the library play any role? Are the libraries/librarians involved as major partners/role players in the distance education provision of the university? Are the libraries/librarians very relevant for the tasks faced?

A survey conducted by the University of Sheffield on nearly 1000 distance postgraduate students in 19 universities in the United Kingdom reveals a depressing picture of the lack of recognition of the need to provide library services to these students (Bolton, Unwin and Stevens, 1997). If this was the situation of distance learners in an advanced country of the world, what hope do distance learners in this part of the world have? Is attention given to providing library support services for them? Is there any institutional policy or philosophy that guides the operation of distance library services? This work undertakes

an analysis of the model adopted by the outreach arm of the University of Botswana, and assesses the involvement of the University Library in the provision of distance education at the University of Botswana. In addition, an attempt is made to provide answers to some of the issues raised above.

1.2 DEFINITION OF TERMS

It is considered appropriate to establish and clarify the meaning of some important and applied terms in this study as even open and distance education has been given a range of terms. The following are some of the related terms used:

1.2.1 CORRESPONDENCE EDUCATION

Correspondence education is a distance education method that is usually organised and communicated through the post, using print and related material. This system of education, according to the Commonwealth of Learning (COL) (2000) is “based on stand-alone, self-study materials”. Making further clarification, the COL states that in correspondence education “learners do not have to leave their homes to study”. The COL further points out that the system also allows the use of “a variety of means for tutor-learner contact, including the postal system, telephone, video and audio cassettes, electronic mail and television and radio broadcasts”. Today this term is no longer used, and the COL states, “many university programmes in North America have, in the last 15 years, renamed their correspondence programmes to more current titles such as open and distance learning”.

1.2.2 HOME STUDIES

Home study makes it possible for a learner to pursue his studies at home rather than in a formal school setting. Though a distance learner may study at home, s/he does not have

to be confined to home while undertaking such study. Keegan (1996) points out that “one of the difficulties in using ‘home study’ as a generic term is that the distance student may not, in fact, study at home or may study in part at home and in part at other centres”.

1.2.3 EXTERNAL STUDIES

According to Keegan (1996) the term external studies is applied to “a form of education that is ‘external to’ but not ‘separated from’ the faculty of the institution”. The COL (2000) gives support to Keegan when it affirms that the term “applies to instruction that takes place somewhere other than on a central campus, such as a classroom remote from campus”. In Southern Africa the University of Namibia is an example of an institution that has a Centre for External Studies. It runs open and distance education courses for the University.

1.2.4 OPEN LEARNING

Lewis and Spencer (1986) describe open learning as “courses flexibly designed to meet individual requirements”. According to them “it is often applied to provision which tries to remove barriers that prevent attendance at more traditional courses, but it also suggests a learner-centred philosophy”. Open learning is based on an educational philosophy that gives consideration to learners’ choices of, among others, place and pace of study and the media to use. Among the notable institutions that use the term “open” in their institutional names are: The Open University in the United Kingdom; and Indira Gandhi National Open University in India.

1.2.5 CONTINUING EDUCATION

The term continuing education is defined as “the education that continues some form of education which a person has had before.... It is an education that adds to the initial education that one has had, either to complete it, remedy it, improve it, adapt it to a new

level of requirement, or to supplement it” (Akinpelu, 1988). The University of Botswana’s outreach arm is the Centre for Continuing Education. The Distance Education Unit (DEU) is subsumed under this centre.

1.2.6 OTHER FEATURED TERMS

1.2.6.1 CCE

This is the acronym that stands for the Centre for Continuing Education. The Centre for Continuing Education is the outreach arm of the University of Botswana.

1.2.6.2 DEU

By DEU is meant Distance Education Unit. This unit is one of the three academic units that make up the Centre for Continuing Education. The DEU is given the task and responsibility to organise courses by distance learning mode at the University of Botswana.

1.2.6.3 UB

By UB is meant the University of Botswana.

1.2.6.4 UBL

This abbreviation also commonly features in this study. It is used in place of the University of Botswana Library.

1.2.6.5 COL

This acronym stands for the Commonwealth of Learning. This organisation established by Commonwealth Heads of Government for purposes of encouraging the development and sharing of open learning/distance education knowledge, resources and technologies. One of COL’s responsibilities is to assist developing nations, particularly in the Commonwealth, to improve access to quality education and training.

1.2.6.6 ICDE

This abbreviation stands for the International Council for Open and Distance Education. ICDE (2001) describes itself as “the global membership organisation of educational institutions, national and regional associations, corporations, educational authorities and agencies in the fields of open learning, distance education, and flexible, lifelong learning”. It is known that this organisation universally propitiates international cooperation in distance education and open learning.

1.3 THE OBJECTIVES OF THE STUDY

1.3.1 SPECIFIC AIMS AND RESEARCH OBJECTIVES

The aims of this study are:

- To identify different teaching models available in distance education and their characteristics vis-à-vis the role of the library in them.
- To examine the distance education model of the University of Botswana and the involvement of the University library in the effort to take the University to the people.
- To identify the role of the World Wide Web in providing library services to distance learners.
- To examine if there was room for improvement in the way the University library presently assists the distance learners enrolled with the university.

1.4 HYPOTHESES

To give focus to the research the following hypotheses formulated are to be tested.

- First, the involvement of the library plays a significant role in distance learning. A corollary to this was that if distance learners were unable to gain good access to library facilities, then this would have a negative impact on the performance of students.

- A second hypothesis was that distance learners of the university are further disadvantaged because of the absence of branch libraries and supporting computer-mediated infrastructures (including Internet facilities) across the country. It was assumed, for example, that when Internet facilities were not readily available distance learners were hampered because they did not have access to the university library web-page.
- Furthermore, the advent of the World Wide Web has had a tremendous impact on library and information dispensation, particularly for distance learners. This ICT has not been fully exploited to assist distance learners of the University of Botswana.

1.5 DISTANCE EDUCATION AND TEACHING

In a study of this nature it is important to bear in mind that the definition of a subject that has been given assorted names can give rise to controversy. The terminology used in Distance Education is multifarious. Indeed this diversity related to distance education is shown in the section dealing with the definition of terms in 1.2 above. It should be noted that the terms mentioned are by no means exhaustive. At this stage definitions of open and distance learning are necessary to provide a platform to determine what should be role of the library in this non-conventional system of education.

The definitions of distance education given earlier were those made by people regarded as the “grandfathers” of distance education. They include Moore (1973, 1977), Holmberg (1977) and Keegan (1980), among other authors. These are frequently quoted in the literature. There are numerous other authors who recently made their attempts on the definition. It is important to give further attention to some of these writers.

According to Moore (1973, 1977), distance education is “the family of instructional methods in which the teaching behaviours are executed apart from the learning

behaviours". These, he states, include "those that in a contiguous situation would be performed in the learner's presence, so that communication between the teacher and the learner must be facilitated by print, electronic, mechanical or other devices". In the same vein, Holmberg (1977) noted that distance education comprises "the various forms of study at all levels which are not under the continuous immediate supervision of tutors present with their students in lecture rooms. But which nevertheless, benefit from the planning, guidance and tuition of a tutorial organisation".

A recent definition of distance learning is one given by Rowntree (2000). He defines it as "learning while at a distance from one's teacher – usually with the help of pre-recorded, packaged learning materials. The learners are separated from their teachers in time and space but are still being guided by them". Portway and Lane (1994) made another attempt at a definition. They see distance education as the "teaching and learning situations in which the instructor and the learner or learners are geographically separated, and therefore, rely on electronic devices and print materials for instructional delivery".

It is pertinent to note that from the above definitions some salient issues have emerged. All the definitions seem to give support to the central notion of separation between the learner and the tutor in distance learning. Also embedded in the definition is the reliance of this form of education on assorted technologies to bring about the education. It should, therefore, be noted that the interpersonal relationship and face-to-face communication that exists between the learner and teacher in a conventional education delivery system is absent, and in distance education this is taken over by some form of mechanical or electronic communication. These consist of devices that could be applied either on their own or combined. They include print, broadcasts, the telephone, audio and video cassettes, teleconferencing and the use of the computer and its Web-based facilities. It is also now acknowledged that computer networking has contributed to an explosion of interest in distance education.

Adekanmbi and Selepeng-Tau (1996) appear to have summed up and identified certain features that are typical of most available definitions of distance education. These include:

- Distance education is a non-traditional approach to teaching and learning;
- It presupposes the existence of some distance, mostly physical but sometimes social, between the tutor and the learner;
- In bridging this distance between the tutor and the learner, a medium of instruction, possibly print, electronic or other mechanical device is used;
- As a result of the variety of media used, different forms of distance education emerged;
- A wide range of experts or professionals are involved in the preparation of the text or electronic materials;
- An organisation exists to consciously plan and implement the educational programme;
- The use of face-to-face lectures to support the main teaching/learning mode may occur as an exception to the rule but not the rule itself.

In order to empower distance learners with life long learning skills librarians need to teach. Part of the philosophy of the Association of College and Research Libraries (ACRL) (2000) in its guidelines for distance learning library services has established the principle that the “instilling of lifelong learning skills through general bibliographic and information literacy instruction in academic libraries is a primary outcome of higher education”. The ACRL believes that such preparation and the associated measurement of its outcomes are as necessary for the distance learning community as they are for those on the traditional campus. The implication of this principle, among others, is that for purposes of equity, librarians should teach information literacy skills (ILS) to distance learners as they do to traditional students so that distance learners can benefit from ILS in the same way. ILS inculcates life long learning skills into students. How will the librarians teach these skills at a distance? This is a challenging role for librarians in a distance education system.

Many libraries, particularly in advanced countries of the world, collaborate with the faculty to teach ILS to distance-learning students. The general belief is that a student who is information literate will feel confident in any library and information centre, and will be able to access information efficiently and effectively. In designing information literacy standards, Oklahoma State (2000) believes that “information literacy, the ability to find and use information, is basic to student learning” and therefore declares that “these skills are to be taught as an integral part of curriculum”. As if to adduce reasons for the teaching of ILS, these standards include the following:

- An information literate student should be able to critically and competently evaluate information.
- An information literate student should be able to accurately and creatively use information.
- An information literate student is an independent learner who pursues information related to personal interest.
- An independent learner is one that is information literate and understands the value of literature and other creative expressions of information.
- An independent learner is one that is information literate and makes every effort to attain excellence in his hunt for information and knowledge generation.

Adapted from Oklahoma State 2000:
Oklahoma Priority Academic Student Skills
information literacy

Apart from general bibliographic instruction, Marie-Therese (1997) also submits that: “electronic training programmes are also necessary as some students may not have the appropriate know-how to use the information retrieval technology”. She believes that some students may also “not have the analytical skills to create search strategies or the ability to comprehend, decode and use the data retrieved”.

Holmberg (1986) notes that basic arguments in favour of distance education “voiced from the very beginning are thus the opportunities opened to adults to learn anywhere and at

any time suitable to them beside their other commitments, to upgrade their competence and generally to educate themselves without having to adapt themselves to the convenience of others". The question now is if the adults are to learn anywhere and at any time suitable to them, and given their independence, should they not be adequately equipped for this purpose?

By virtue of the nature of their study mode, it is unnecessary to state that distance students should be assisted on how best to access new worlds of information. No doubt, the faculty of a university has a role in this. But then the librarians should not depend entirely on the faculty, as they (the librarians) appear to have a more critical role to play in the new and expanding world of information that has developed.

A group of theorists have defined teaching as the deliberate and intentional initiation of a pupil into the world of human achievement or into some part of it (Oakshot, 1967). Adekanmbi and Somers-Vine (1996) carries this interpretation further suggesting that: "a pupil is in fact a learner known to the teacher". Skinner, cited by Baath (1979), sees teaching as "the arrangement of contingencies or conditions of reinforcements under which students learn". The definition suggests that teaching can only take place when there is someone to teach and another to be taught. A teacher's duty is to arrange the conditions whereby learning can be expected to take place.

Teaching in distance learning, according to Moore (1973), comprises "all those teaching methods, in which because of the physical separation of learners and teachers, the interactive (stimulation, explanation, questioning, guidance) as well as the preactive phase of teaching (selecting objectives, planning curriculum and instructional strategies) is conducted through print, mechanical or electronic devices".

Adekanmbi and Somers-Vine (1996) note that there are a number of issues that are common to all teaching situations, be it face-to-face teaching or teaching at a distance as in distance education. They identify the following submissions as areas of commonality on this subject.

- Aims and objectives: All teaching must have identifiable aims and objectives. There must be a purpose.
- Content: There must be content for teaching, and knowledge skills and attitudes to be taught and developed.
- Procedure/Methodology: There must be a process of carrying out the teaching and this includes basically a method and the appropriate techniques provided with it.
- Media: There must be resources or media, which serve as channels of communication in the teaching process whereby pedagogical information is shared.
- Evaluation: There must be an evaluative procedure to find out what has been achieved.
- Feedback: There must be room for feedback, whether it is immediate or delayed.
- Products: There must be products of teaching, especially in terms of those who have been taught and who have competencies in terms of acquired knowledge, skills and developed attitudes.
- Subject structures: Different subject areas have structures, which in turn affect the general approach to be adopted when their teaching is being carried out.
- Result: Learning should result from teaching.

Different theorists have suggested a number of models of teaching in distance education. Holmberg (1981) in his model of didactic conversation says good distance education resembles a guided didactic conversation to achieve its goal of promoting learning. Holmberg's view was based on the following postulations:

- There is promotion of study pleasure and intrinsic motivation in students when there is the feeling of a personal relationship between the teacher and learner.
- Such feelings of a personal relationship can be promoted even at a distance by the style of communication between the teacher and the learner.
- The realisation of study goals and the application of proper study processes and methods are the consequence of intellectual pleasure and study motivation.

- The feeling of a personal relationship between the teaching and learning parties could result from the prevailing atmosphere, language and conventions of friendly conversation between both parties.
- Most easily understood and remembered messages are those given and received in conversational forms.
- The communication media used in distance education can also be used successfully to translate conversational concepts between the two parties.
- For organised study that is characterised by explicit or implicit goal conceptions to take place, it is important to adequately plan and guide the work carried out either by the teaching establishment or the student.

The characteristics of Holmberg's guided didactic conversation as noted by the author include the following:

- Presentation of study matter is easily accessible, the language of the text is clear, colloquial and simply expressed; and the density of information is moderate.
- Explicit advice and suggestions are given to the student about what to do and what to avoid, and what to pay particular attention to and consider, and the reasons provided.
- An exchange of views is invited to encourage the student to questions, to make judgments of what is to be accepted and what is to be rejected.
- An attempt is made to involve the student emotionally so that he or she takes a personal interest in the subject and its problems.
- Personal styles are used, including the personal and possessive pronouns.
- There is a demarcation of changes of themes through explicit statements, by typographical means or, in recorded spoken communication, through a change of speakers, for example, a male may be followed by female, or through pauses.

Other models of distance teaching include Ausubel's (1968) advance organiser model, Skinner's behaviour control model, quoted extensively by Baath (1979), and Carl Roger's (1969) facilitation model. Though they vary, all the models lend credence to the

fact that teaching in distance education should follow a conversational style in texts prepared. This, they believe, has the capacity to bring about feelings of a personal relationship between the teacher and the student. More importantly, as library and information services enter a new phase in the educational system, collaboration with the faculty, tutors, other course writers and distance educators is a *sine qua non* for effective performance of the library and the librarians in this new dispensation of learning and knowledge.

1.6 MODELS USED IN DISTANCE EDUCATION

In developing distance education programmes, there has been an emergence of a great variety of models propounded by different authors, whilst others continue to make their submissions based on these models. This ranges from two major groupings drawn up by Peters (1971), El Bushra (1973), Neil (1981), to seven basic organisational models structured by Keegan and Rumble (1982) among others. An attempt has been made to explain the reason for the different organisational models put in place in various places. According to Rumble (1986), “in implementing any distance education project there can be no question of transferring a particular system from one country to the other, no matter how successful it appears to be in its original setting. Each project must be considered within its own context of the environment in which it will operate”. In simple language, it could be explained that the variations that occur when a system is imported into another context often generates a multiplicity of models.

Since the main focus of this study is on the role of the library in this type of learning, we shall be complacent with the summary of the available models proposed by Dodds (2000). Basically, he perceives open and distance education as being in two main categories, the delivery and institutional models. There are five delivery models, and three institutional models. The five delivery models are immediately discussed hereunder:

1.6.1 DELIVERY MODELS

The five delivery models include the following:

1.6.1.1 The Challenge model

The basic characteristics of this model include:

- Learning materials, a syllabus, a reading list and so on are provided. Students are expected to work on their own, study the way they choose and then take the examination. Sometimes the model is mediated at a distance with tutorial support.
- It is the opposite of the student-centred model.
- It is not expensive to provide.

The challenge model is targetted towards:

- Highly motivated adults
- Postgraduate students

Examples of where the challenge model is practised are:

- London University for the external degrees
- UNISA (until very recently)
- University of London/IEC for the MA in Distance Education.

1.6.1.2 The Resource-based learning/Three-way teaching/Flexi-study model

This model has:

- Good interactive learning materials
- A strong element of occasional face-to-face contact support
- A strong institutionalised student support service

For this mode, the target audience includes:

- Adult secondary school students
- Adult tertiary students
- Professional upgrading students (for example, teacher education, accounting and nursing programmes)

Some of the places where this model is adopted are

- University of Namibia
- University of Botswana
- United Kingdom Open University (UKOU)
- UK National Extension College (NEC)
- Most Open Universities.

1.6.1.3 The Supervised-study group model

The main characteristics of this model are:

- Students study in groups.
- Supervisors structure and support the learning session but do not teach.
- Open and distance learning materials are used.
- It is usually offered as an out-of-school alternative.
- Face-to-face support is provided.
- It is more expensive than the previous models but cheaper than formal schools.

The targets of this model are normally:

- Out-of-school young adults and adolescents
- Children who cannot get a place in school, or who are unable to go to school

Some examples of this model are:

- Supervised study groups in Zambia and Malawi
- The Australian School of the Air

- The Indian/Indonesian Open Schools

1.6.1.4 The In-school media enrichment model

Characteristics of this model include:

- Teacher-led media used in class to improve the quality of teaching
- Additional tuition to that of formal school
- Extra costs over and above the normal costs of formal schooling

The targets of this model are:

- Children attending school
- Students enrolled at university

Some examples of the model are:

- Interactive radio instruction experiments (such as OLSET – South Africa)
- Tele/radio programmes
- African Virtual University, as used in Namibia and Kenya.

1.6.1.5 Media-enabled adult (Education/non-formal education) study groups

The principal characteristics of this model are:

- It is media led (usually radio).
- Group study is used.
- Community and popular education uses it extensively.
- It does not lead to a qualification.
- It is cheap if large scale, but it is usually not carried out to achieve benefits of scale.

The targets of this model are:

- Un- and under-educated adults (including illiterates)
- Adults learning for specific personal or society purposes

Examples of places where the model is adopted include:

- The tribal grazing lands campaign in Botswana
- Tanzanian health education campaigns
- Namibian farmers education projects

1.6.2 THE INSTITUTIONAL MODELS

There are three identified institutional models:

1.6.2.1 Single mode institution

- This institution is set up to offer programmes of study at a distance.
- It is largely self-contained and self-reliant.
- It is independent of conventional educational institutions.
- Potentially large scale benefits are possible.
- Some face-to-face interaction is involved, but this is often optional.
- The Teaching and learning process is 'mediated' in some way, such as: by print, including correspondence; by audio, including radio (one-way, two-way), cassettes, telephone and audio conferences; by video, including television (one-way, two-way), cassettes or video conferences; and by computer, including computer-based training, e-mail, computer conferencing and the World Wide Web.

Many of the world's 'mega-universities' including the Indira Gandhi National Open University (IGNOU), Sukhothai Thammathart Open University (STOU), the University of South Africa (UNISA) and the United Kingdom Open University (UKOU), are single mode institutions.

1.6.2.2 Dual mode institution

Dual-mode institutions are also called bimodal.

- Such an institution offers learning opportunities in two modes - one using traditional classroom-based methods, and the other using distance methods.
- It may also offer the same course in both modes, with common examinations.
- It usually has a dedicated open and distance learning unit within it.
- The two types of learner (on-campus and external) are regarded as distinct.
- It may or may not allow 'cross-over' registrations.

Examples of dual mode institutions include the Open Learning Institute of Charles Stuart University, the University of Nairobi, the University of Botswana and the University of Zambia.

1.6.2.3 Mixed mode institution

This model which offers learners a wide choice of modes of study is:

- Independent, group-based or a combination of these; and face-to-face, mediated or a combination of both.
- It maximises flexibility of place and pace of study.
- It results in a 'convergence' of face-to-face and distance modes.
- It increasingly characterises organisations that were once 'single mode' or 'dual mode'.

Deakin University and Murdoch Universities, both in Australia, provide examples of institutions that are now 'mixed mode'.

1.7 THE CCE, UNIVERSITY OF BOTSWANA AND ITS MODEL

The Revised National Policy on Education (1994) identified the CCE as "the lead agency for the provision of part-time and distance education programmes for adults at the tertiary

level in Botswana”. As the focal point for the development of continuing education programmes in Botswana, the CCE (1996) indicated that its main challenge is to achieve two goals: These are:

- To increase access to higher education by employing various modalities for delivering education, especially those that do not require persons to leave their jobs in order to attend the university full-time. This would assist in meeting the increased demand for education throughout the country.
- To mount more tailor-made short courses suited to the needs of various consumers after consultation with them. These are to be run increasingly on a cost recovery basis – thus helping the University to achieve a degree of financial self-reliance.

In order to meet the mandate or challenge facing the CCE, the DEU, one of the three academic units under CCE, established the following objectives:

- To assess national learning and instructional needs, and develop and implement appropriate educational programmes to redress any deficiencies;
- To extend educational opportunities to all aspiring Botswana without the need for them to live away from their families, or to withdraw from their duties in nation building;
- To develop distance education study packages that are relevant to the needs of Botswana;
- To produce qualified and skilled human power in order to hasten the localisation process;
- To develop technological and technical capacity in order to meet the needs of a modern distance education unit;
- To develop an adequate student support system which will meet the diverse learning needs of distance learners;

- To promote networking between the DEU and other institutions and organisations at the national, regional and international levels in order to share available resources and facilities;
- To work closely with University departments and units in identifying, developing and delivering programmes that are needed.

To achieve the set objectives, the DEU has started two programmes and plans are afoot to mount other courses by distance delivery mode. The courses currently available by distance delivery mode are

- Diploma in Primary Education (DPE), and
- Certificate in Adult Education (CAE).

In terms of the institutional model to be adopted, there is little doubt as to where it is to be located. The Centre for Continuing Education, into which the DEU is incorporated, was set up alongside other departments but specialises in delivering distance education within a conventional institution. This conforms to the practice followed in a dual-mode or bimodal institution. Kamau (1998) reasoned that considering the low and sparse geographical distribution of the population in a country where there is only one university, the only practicable option to adopt was the dual mode system. It will be recalled that in the dual or bimodal system an institution offers learning opportunities in two modes - one using traditional classroom-based methods and the other using distance methods. This is the situation within which distance education operates at the University of Botswana.

In so far as the delivery mode is concerned, it will be necessary to explain a few of the issues that have arisen in the operation of the distance learning programmes of the DEU prior to identifying one of the delivery modes discussed above as a preferred mode.

First and foremost it has been noted that the DEU operates under the umbrella of the CCE. The Centre for Continuing Education is not recognised as a department that can

award certificates, diplomas or degrees. Thus it runs programmes leading to awards offered by departments of the University.

With regard to the Certificate in Adult Education programme, the Department of Adult Education of the University is responsible for the award of academic credits. Tutors are drawn from the Departments of Adult Education and Communication and Study Skills to work with DEU staff for course planning, design and development.

In the case of the in-service Diploma in Primary Education programme, the Colleges of Education in Botswana award diplomas validated by the University. The DEU liaises with the Primary Colleges of Education for a number of reasons. Firstly, these colleges are running a similar programme. The only difference is in the mode of delivery. It will be recalled that the same course could be offered in both modes even with common examinations. However, provision should be made to treat the two types of learner differently. Lecturers teaching in the Colleges have been appointed as tutors on the DPE distance programme.

The second reason is that all the Colleges of Education are affiliated to the University of Botswana, and at the same time they are under the direct supervision of the Ministry of Education. Furthermore, the CCE started the DPE programme by distance mode for the teachers in primary schools at the request of the Ministry of Education.

Despite evidence of some disparities in the handling of the two programmes (DPE and CAE) in practice by the distance learning mode, there are certain common traits or characteristics that can be perceived in the running of the two programmes. These include the following:

- Highly interactive modules have been developed as learning materials for students.

- Regular residential/face-to-face contact sessions are organised for students, and in some cases, occasional study weekends are arranged where students meet and interact not only among themselves but also with their tutors.
- Apart from the available counselling service and direct contacts that the students have with the DEU, students are also able to get in touch with their tutors by telephone and obtain library and information service on-line.

The identified common characteristics in the two programmes currently being run by distance mode provide good grounds to state that the delivery mode of the CCE falls in line with the model described as the Resource Based Learning/Three-Way Teaching/Flexi-Study Model.

1.8 OUTLINE OF THE STUDY

The study is divided into five chapters. These are:

Chapter 1: Introduction

This chapter provides information on statement of the problem, the objectives and hypotheses of the study. It gives background information on different types of models that have evolved in distance learning. It focuses on the model adopted or being adopted by the Centre for Continuing Education, the outreach arm of the University of Botswana.

Chapter 2: Review of the literature.

Library and information service is an arrangement that should be put in place when an institution introduces an education system by a distance delivery mode. The focal point in the review of the literature is to assess the role of the library in the distance-learning environment. The literature review also brings into clear focus some case studies around the world of the library operations as they relate to distance learners. It also addresses the advent and importance of modern information and communication technology (ICT) in a library environment.

Chapter 3: Research methodology

Though a literature review is part of the research methodology, the third chapter is devoted to explaining how other methods were applied in conducting the survey on which this study is based. It discusses the population studied, questionnaire design, and the administration and collection of data.

Chapter 4: Research Findings and Discussion

This chapter discusses the findings from the questionnaires administered in chapter three above. It analyses the result of the questionnaires from the three groups of respondents – the students, the DEU staff and the librarians involved.

Chapter 5: Conclusion and Recommendations

This is the concluding chapter. It is to bring out recommendations that are hopefully going to assist the university library and other stakeholders in carrying out their respective responsibilities to distance learners in Botswana.

1.9 CONCLUSION

In this chapter a brief background has been provided to this study. The research objectives as well as the aims of the research have been explained. We made some attempts to establish the fact that in distance education, librarianship has entered a new phase that poses a great challenge, a challenge that is very different from the practice in a face-to-face learning environment. Some models in open and distance learning were discussed, and the focus then moved to the model of distance education at the university of Botswana.

In the next chapter a review of literature is undertaken. This review of literature examines the role of the library in a distance-learning environment. It takes into account case studies of some institutions where distance librarianship is practised around the world. It also examines the role of information and communication technology and its usefulness in providing library and information support to distance learners.

CHAPTER TWO

2 LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter we are going to examine the ideas, views and findings of various authors and researchers on distance education and library provision for this group of learners. It is our belief that an understanding of the experience of what has happened in libraries and institutions in different parts of the world where distance education has been adopted as a mode of learning will at this stage give an enriched background to this study. This is what is offered in this chapter. The review of the literature is therefore arranged by topic for the purpose of addressing what is known about various aspects of the study. The aspects that will be covered under this review of literature include: distance learning and library provision; case studies of library and information services from different parts of the world; and the usefulness and application of ICT in Library Systems for distance learners.

2.2 DISTANCE LEARNING AND LIBRARY PROVISION

It is more than obvious in the world today that the conventional mode of educational delivery no longer has the capacity to cope with the modern demand for education by the populace. An increasing number of people, particularly working adults, are desirous of further education, and to satisfy this distance education is increasingly becoming more popular. As distance education beckons to people, more and more academic institutions are turning to this mode of learning. This falls in line with the observation of Cross (1987) in her speech at Central Michigan University's 1987 Conference on Adult Learning in Higher Education. She declared that, "the trend is as clear as it is steady. The college campus has burst explosively from its boundaries, and decentralization of learning is a major trend of our times".

Various institutions of higher learning are putting in place distance learning programme. One particular issue that should be borne in mind is that a necessary ingredient of distance learning is the library and information services, which should provide the facilities required by their distinctive students. While this mode of delivery is endorsed as a viable alternative to the conventional system, one snag that has been of concern to many authors is the provision of library and information services. It was this fear that prompted Kaye (1981) to state that, "a student needs to have access to a well-stocked library". Because of his conviction of the need for library provision for such a student he declared that "its absence is perhaps the single most serious limitation of distance education at university level". Watson (1992, 1998), Appleton (1997), Cavanagh and Tucker (1997) and many other authors have established the fact that access to quality library resources and services is a critical factor in any academic programme of merit. They have, therefore, sounded a clarion call to the academic institutions running distance education programmes that they have a responsibility to provide their distance learners with library and information resources and facilities equivalent to those available to their on-campus counterparts.

The general apprehension about such services related to distance education appeared to be further reinforced when the British Open University (OU) was established in 1969. The university tacitly avoided the responsibility of making available proper library services to its students. The OU simply directed that its students should rely on services provided by the public and other university libraries for their library and information needs.

This perhaps brings us to the issue of credibility and the equivalence of distance education to the traditional mode. Credibility, Bobb-Semple (1997) stated, "depends not only on the quality of instruction, fundamental though that may be, but also on the adequacy of learning support services which must include easy access to sources of information". He further declared that, "access to adequate and relevant information resources contributes greatly to ensuring equity and achieving parity". He drew the

conclusion that the existence of an effective and efficient library service is a key requirement of any distance education programme of quality. In order to further support this belief, Watson (1999) has a suggestion for what she describes as a facilitatory institutional philosophy for library services. Her submission is that, in order to provide quality library and information service for distance learning and distance education, “it is necessary for any institution offering distance education programmes and courses to institute a philosophy that recognises the provision of library service to their students”.

As if lending credence to the assertion of Bobb-Semple, Johnson (1986), a special Commissioner to the Commonwealth Tertiary Education Commission in Australia, in an opening address on the theme of library services in distance education, had this to say about the role of libraries in distance education. “In the development of distance education libraries have a central place. They supply crucial learning resources”. He added that “those providing distance services have particular problems beyond those of libraries in conventional institutions: special problems of costs in book purchase, in postage”. In relation to administration, he asserted that there are “special problems of administration involved in the whole business of despatch and retrieval; special problems of counselling bemused students who are not simply on the other side of a desk but may be hundreds of kilometres away”. He further declared that “without [quality] library services, the success of distance education in [Australia] will not continue”.

The academic library has traditionally remained central to the educational process. It has always been perceived as one of the measures of quality of an educational institution. In a study that examined provision of education below university level in English-speaking West Africa, evidence was adduced to advance the view that the existence of, and adequate provision in, libraries significantly enhanced the success of and quality of national education programmes. In those countries where expansion of formal education was not supported by a similar growth in library provision, the quality of education suffered (John, 1977).

Magnus (1990) cited a more recent World Bank study that confirms the view expressed above. Reference is made to the widening gap in educational provision between sub-Saharan Africa and the rest of the world caused by the absence of books. According to this analysis, a cost comparison exercise indicated that educational materials account for just 1.1 percent of the recurrent primary education budget in the median-level African countries, which is \$0.60 per pupil per year. When compared with the same educational level in developed countries, it is much larger as the budget for instructional materials accounts for about 4 percent, which amounts to approximately \$100 per pupil per year. It is, therefore, a foregone conclusion that any difference in quality, when set in context alongside other related factors, such as language, trained staff, and purpose-built accommodation, can only widen the gap in quality of support structures in each education system.

The point at issue now is: if there is a problem of library and information provision in a formal setting, what hope can there be in a non-formal setting as in distance education? This has increased uneasiness amongst distance learning providers. It must be added that much concentration has been placed on the provision of library and information services in the formal learning environment. But the issue is that, in the event of library and information services being provided for distance learners, will the service for them be equal to that available for students in a conventional system?

One of the first notable organisations/associations to take up the challenge of ensuring that library and information services are adequately provided for distance learners is the American Library Association (ALA). The requirements of extended, distance-learning or off-campus students started gaining attention in 1931 when the American Library Association observed that students studying away from the main campus of their institutions were suffering from educational disadvantage because of non-availability of library resources. In 1967 the Association of College and Research Libraries (ACRL) developed guidelines on library services provision for this category of students. The guidelines were revised and approved in 1990, while 'the final version' was approved in

July 1998 as the ACRL guidelines for distance-learning library services. An addendum was incorporated in the guidelines in 2000.

The guidelines defined distance-learning library services as “those library services in support of college, university, or other post-secondary courses and programs offered away from a main campus, or in the absence of a traditional campus, and regardless of where credit is given”. According to the guidelines the courses referred to are “inclusive of courses in all post-secondary programs designated as: extension, extended, off-campus, extended campus, distance, distributed, open, flexible, franchising, virtual, synchronous, or asynchronous”.

The ACRL directive was detailed and unambiguous in the guidelines handed down on library provision in distance education. For instance, the prelude in the 2000 addendum to the guidelines stated that, “Library resources and services in institutions of higher education must meet the needs of all their faculty, students, and academic support staff, wherever these individuals are located, whether on a main campus, off campus, in distance education, or extended campus programmes, or in the absence of a campus at all”. It further states that library resources should also meet the requirements “in courses taken for credit or non-credit; in continuing education programmes; in courses attended in person or by means of electronic transmission; or any other means of distance education”.

To avoid ambiguity, the guidelines were very emphatic as they spelt out further details in terms of philosophy. The philosophy of the guidelines for distance-learning library services assumes, among other things, that:

- Irrespective of where the students, tutors and programmes may be located accessibility to adequate library facilities is important for any higher academic skills to be accomplished.
- All the stakeholders in distance learning should also receive the same library services and resources as students in a conventional system.

- Acquisition of lifelong learning skills by distance learners through the teaching of information literacy skills programme is a necessity and by-product of higher education.
- Equity and justice demand that specialised and/or personalised library services should be administered to students and faculty members of distance learning in order that they may also have access to a full range of library services and materials.
- While effective and appropriate library services to the distance-learning community vary, they should be of the same value as the services provided in a conventional system.

Adapted from ACRL, 2000.

The guidelines also provided information on management, financial support, personnel, facilities and resources that should be considered when an institution introduces a distance education programme. On the library services that should be offered to the distance-learning community to meet effectively a wide range of informational, bibliographic, and user needs, some of the services suggested in the guidelines by ACRL include:

- Assistance with reference inquiries
- Computer-mediated/assisted bibliographic and informational services
- Provision of reliable, rapid and secure accessibility to the Internet and other institutional network resources
- Ensuring prompt delivery of documents by employing the services of an efficient courier system and, or using electronic transmission
- Instituting library use education and information literacy skills programmes to ensure independent and life long learning
- Generous opening hours to encourage maximum use of the library resources
- Collaborative agreement with other institutions that ensures mutual borrowing and effective interlibrary loan services

Adapted from ACRL, 2000.

Regarding facilities, the guidelines stipulate that the originating institution should provide facilities, equipment and communication links sufficient in size, number, scope, accessibility, and timeliness to reach all students, and to attain the objectives of distance-learning programmes. The guidelines offered the following as some examples of possible arrangements that could be made:

- Partnership with other libraries to ensure easy accessibility to facilities;
- Creating a specially designated place for purposes of consultations, ready reference collections, reserve collections, electronic transmission of information, computerised database searching and inter library loan services and providing offices for the library distance-learning personnel;
- Establishment of branch or satellite libraries;
- Provision of virtual services, like Web pages, Internet searching, and electronic connectivity.

Adapted from ACRL, 2000.

Other experienced authors in distance librarianship have also made their contributions to some of the issues raised above. For instance, in discussing factors that a library should consider in establishing a library delivery service to its distance students, Cavanagh and Tucker (1997) advised that a number of questions must be raised and addressed. The following are some of them:

- What staffing will be required and how many professional staff will be employed?
- Will the library try to supply sets of “core” recommended material to study centres or extended campus sites or will it provide all library services from a central library?
- How can the library ensure that it has adequate stocks of multiple copies of recommended books for its distance as well as its on-campus students? (In the event that the institution runs a dual-mode system).
- How can the library obtain reading lists for new and remade external courses?

- Who will have the responsibility for ordering material – library staff or academic staff?
- Will the library accept requests from distance students by telephone? If so, will it provide a toll-free service and answer phone?
- Will it lend prescribed (set) textbooks or only recommended and other readings?
- Should there be a limit on the number of items that distance learner can have on loan at one time and/or should there be a limit on the number of items they can borrow for a given unit or subject?
- What is a reasonable loan period and will students be allowed to renew items? Will students be able to renew by phone?
- Will it provide photocopies of articles? If so, will they be supplied free or will a charge be made? If it is decided to charge students, what is an equitable rate and how will the library administer the service?
- Will the library accept subject requests (general requests for information) and if so, will it carry out computer and CD-ROM searches on students' behalf? Will it charge the students for these computer searches?
- Will it try to obtain inter-library loans for undergraduates or will these be available to postgraduates only? Will students be charged for inter library loans?

In lending her weight to what should constitute the component of an adequate library support system for off-campus programmes, MacTaggard (1991) itemised six salient issues. These are:

- Where practicable, an agreement should be made with local municipal, military, college or university libraries for students and faculty use. She added that, "these co-operating libraries need to have collections that are relevant to the curriculum being offered". The off-campus program needs to have meaningful input into acquisition decisions of the co-operating library.
- In most instances some collections of library and learning materials should be maintained in study centres. At the very least, these would include basic

references suitable to the curriculum. The site should also provide the capacity for database searches.

- There would be an efficient, timely and free retrieval service, which allows learning resources to be sent from the main campus to the off-campus location. This implies, of course, that the main campus has developed multiple copies of sufficient resources so they can meet demand from different sites at the same time.
- There must be availability of trained staff on site. If the site is large enough, then it should be able to support a full-time librarian. Otherwise, a circuit rider approach may be necessary in which that librarian is available on a scheduled basis.
- The fifth feature of strong off-campus programs is evidence of active involvement by the library with faculty, staff and students to ensure that all groups are knowledgeable of the resources available through the learning resource centre.
- There should be evidence of a close link with the curriculum being offered. This is a manageable task, particularly because so many off-campus programs have a specialised curriculum.

Believing that the consumers of a service usually provide authoritative views on the quality of a service, Steele (1997) of the University of West Indies undertook an empirical search of the distance students' view on the provision of library services in her university. According to her, it was an almost unanimous view (91.4%) of the students that library support was an important factor in the success of their studies.

Writing on their experience in North-western University, Chicago USA, Pickett and Nielson (1991) gave accounts of some issues relevant for other institutions planning library services for non-traditional students. They maintained that firstly, an effective programme requires library-wide cooperation. They subscribe to the idea that planning involved consultation with personnel in many departments including reference, collection management, interlibrary loan, circulation, cataloguing, and acquisitions.

Secondly, the support of appropriate academic administrators is crucial. It is noted that this group can provide valuable information about curriculum, faculty and students for library planners. According to Pickett and Nielson (1991) the academic administrators also served as “valuable political allies who can assist to get things through”.

Thirdly, it is argued that patience and flexibility are important in planning library services to non-traditional students. Quoting Kanter, they noted that change is often difficult to effect in large organisations. It is, therefore, submitted that it must be clear when it is time to move slowly, when to contact other staff, when to bring in additional minds for decision making and so on.

Finally, they argued that effective promotion is essential in creating a successful programme. Outreach and communication would need to be given top priority in the implementation of services, and there is little purpose in creating new and expanded services if they are not publicised.

2.3 DISTANCE INFORMATION AND LIBRARY SERVICES: SOME CASE STUDIES

The nature of distance education has made distance learners the most difficult library customers to satisfy. This probably prompted Watson (1998) to declare that the delivery of library and information services to those who learn at a distance is undisputedly the most pressing challenge that distance librarians encounter. She maintained that, “distance librarianship demands that librarians recognise that their role has transformed from being custodial in orientation to become cutting edge in nature particularly with respect to the delivery of information services”.

Seemingly difficult as this may be, there have been significant and outstanding efforts made in some institutions around the world to provide service for these learners. There is, therefore, a preponderance of literature on practice that could offer a guide to other institutions initiating distance education programmes, particularly in developing countries. For instance, the state of Connecticut in the United States decided to reinforce

the service for distance learners with its own 'code of conduct' for any institutions in the state running distance programme. This is in addition to the guidelines laid down by ACRL and other regional associations.

Aguilar and Kascus (1991) suggested that because of dissatisfaction with the efforts of the regional and national accrediting associations in the area of off-campus programmes, the Board of Governors for higher education of Connecticut decided to establish new regulations pertinent to libraries. Thus section 10a-34-18 of library and learning support states that Library support for off-campus programs is subject to the following requirements:

1. There shall be provision for a core collection, including both circulating and reference materials, sufficient to meet the needs of both the students and faculty to be provided either at the site or via written agreement with a nearby library.
2. There shall be provision for a reserve reading collection at or near the site.
3. There shall be provision of professional library staff support for library services at or near the off-campus site.
4. There shall be provision for additional materials to supplement the core collection, e.g. through computerised bibliographic access and a document delivery system.
5. There shall be provision for adequate annual budget support for library resources at or near the site.

There is no doubting the fact that establishing these new regulations was a major step forward as they have great potential for improving library services to off-campus students.

The University of Queensland was a pioneer in the development of distance teaching in Australia and remained the sole provider of external studies within the state of

Queensland until the 1970s when colleges entered the field. Stressing the role of the External Studies Librarian in Queensland, Crocker (1991) outlined the following functions:

- To act as identifiable person to whom students can confidently write or phone concerning bibliographical and resource materials problems;
- To liaise with external studies lecturers on all matters of resource provisions for external students;
- To meet with students to discuss problems, provide reader education programs etc;
- To prepare guides for external students;
- To develop and review policies of resource provision.

In providing services to its distance learners at the Thatcher Library of the University of Queensland, Crocker (1991) recorded that “its main function is to operate a postal service to the remote off-campus students, though this service is not restricted by geographic location and is available to any students enrolled in the off-campus mode”. With respect to loaned items getting to students, Crocker stated that “material is sent to students through a courier service operated by Australian Post; students must return the material at their own cost. Around 28,000 postal loans are sent from the library. Photocopies are provided for students retention on a voucher system: \$1.50 guarantees supply of any journal article, and postage to the student’s home”. She added that “the library operates an answering phone service for after-hour queries, and it shares a toll-free line with the School of External Studies”. Talking of operating hours, she notes that the Thatcher Library “opens for extended hours during any of the voluntary residential schools held on campus, and its collection is no longer exclusively for use by external students as on-campus students are permitted overnight loan privileges”.

Deakin is another university in Australia that developed in order to provide specialised off-campus courses for undergraduate and higher degrees. An experienced librarian, Crocker (1991), who had worked at the University of Queensland left to join Deakin. She recounted her experience of the *modus operandi* in rendering library services to distance

learners in Deakin: Crocker recalls that “Deakin responds to telephone, postal, personal, telex, facsimile and electronic mail requests for materials, and sends that material to off-campus students around the world”. With regard to those living within Australia, she states that they “receive the material by overnight courier delivery, and are able to return it in the same fashion at no cost”. Deakin, Crocker discloses, pays delivery costs both ways. As for overseas students, she maintains that “airway is used by students resident overseas, and the library reimburses students for return airmail costs”. She added that “photocopies of journal articles are sent out free of charge; and students may borrow videotapes and audio cassettes as well as books”. According to Crocker, “Deakin has an on-line catalogue system, which provides circulation information. When the student makes a telephone inquiry, the librarian can access the catalogue, confirm that the requested titles are available or on loan; and place reservations as necessary”.

New Zealand, a neighbour of Australia, is another country noted for high-level work on distance learning. Bockett, Marsden and Pitchforth (1997) supply information on the library provision in distance education (usually referred to as extramural courses) at Massey University. They declared that from the outset it was recognised that extramural students would need additional reading material to supplement that provided in the study guides. A postal library operation was therefore established and this has continually grown in both “the range of services offered and the scale of the operation”. The philosophy underlying this was to give extramural students access to library services as near as possible to those enjoyed by internal students.

They maintain that apart from holding copies of all books recommended in the students’ study guides and made available to distance learners, distance learners of the university could also utilise the inter-library loan service. The library also ensures that these students benefit from a well-established programme of library instruction, which enables them to acquire library research skills and make good use of the library. Bockett, Marsden and Pitchforth listed the following services, which the students could also request.

- The loan of a specific book, usually one referred to (recommended for further reading) in their study guide. Books are delivered by courier, and issued for a period of three weeks.
- A photocopy of a specific journal article or single chapter of a book. (The student is allowed to keep the article, but copyright regulations are observed.)
- A photocopy of past examination papers for their course.
- Information/material on a particular subject. Library staff supply either a selection of books and/or articles, or a bibliography from which the students can select.

Charles Sturt University (CSU) is another major provider of distance education in Australasia. CSU is a medium-sized Australia university with a dual mode system of operation. Writing on what they called “overcoming the tyranny of distance”, Meacham and Macpherson (1997) reported that the “library has an integrated, computerised system, which supports acquisitions, catalogues and loans”. According to them the following services are provided for distance education students by their library:

- Loans: Most materials can be borrowed for two weeks with only one renewal;
- Returns: While the University pays forward mailing costs, students pay for return of items;
- Photocopies: Efforts are made to ensure that requests for photocopies comply with Australian copyright legislation. While no charge is made for photocopies supplied by mail, charges may be made for large amounts or for facsimile transmission;
- Information and reference services: Literature searches providing lists of citations are provided to enable students to access materials in the university or other libraries;
- Contact: Students can request library services by phone, facsimile, post or E-mail. Toll-free phones and after-hours answering facilities are provided;
- Use of other libraries: All tertiary institutions in Australia allow use of the collections within their library and a high proportion enrolls distance

education students as reciprocal borrowers. It is said that students may also register at a variety of public and even private libraries.

- Reciprocal arrangements: Three university libraries which offer distance support (CSU, South Australia and Deakin) are on agreed terms to extend reciprocal access to remote students and not just to those able to make personal library visits. Periodical articles, if not available at the home library, are supplied directly to the student from another participating library.

Solomon (1997) also shared the experience of the library services to distance learners of the University of Otago - the oldest university in New Zealand. Quoting from the work of Tate (1993), Solomon praised the system of distance learning in New Zealand when he declared that distance education institutions in New Zealand form “one of the most comprehensive, experienced and efficient systems in the world”. In order to support this assertion in relation to library and information services, Solomon stated that the university takes the stance that “students at a distance have full and equal right to access the more than 1.35 million volumes held in the various libraries located on the campus”. He maintains that this philosophy of maximising library facilities to off-campus students does not stop at books, but also includes access to journals – both abstracts and articles as well as “recourse to a powerful national interlending network”. In spite of the steps taken to provide service to distance learners, Solomon does acknowledge that inequities do exist.

Lee (1999) gave an insight on the Social Work Library of the University of Washington (UW) that was to provide library services to the distance learners of the School of Social Work at the university. This school was one of the few departments selected to develop a distance-learning programme for its university in 1995. Lee indicated that “the library had few local models to guide its planning of library services”. She maintained that “within the UW system, services to distance learners were limited, irregular, or one-time only”. Declaring her belief in what the role of the library should be, Lee stated that the

“library not only had to identify the needs of faculty and students but also had to promote and inform its users of the kinds of materials and services that were available”.

In her detailed account of the role of the library she suggested that the Social Work Library was involved in all stages of the distance-learning project – even from the beginning. According to her, “the library planned research assignments with instructors, obtained and delivered course materials, set up policies and procedures for various services (e.g. document delivery), made site visits to the distance learning facility, trained and instructed staff and students, provided reference and consultation, and assessed service outcomes”. She disclosed that there was also “the behind-the-scenes work of processing and handling library materials, which required that new policies and procedures be established for library acquisition, cataloguing, circulation, displaying materials online and handling materials off-site”.

Four main library and information services were identified as critical in supporting a distance-learning programme: According to Lee these include:

- Establishing a collection of materials
- Providing document services
- Teaching about library resources and technology
- Answering reference and information questions.

She observed the concerted effort put into setting up services for distance learners and made the notable remark that “rarely do classes on-campus receive that kind of special attention”. She added that, “at times, the cost to the library seemed to outweigh the benefits to distance students, particularly when it cut into a library budget that could be earmarked to services on-campus”.

Heller-Ross (1999) supports other authors in advocating that distance-learning students require access to the full range of library services; from reference assistance and bibliographic instruction to inter-library loan, course reserves, circulation, and

information network connections. She recounted her experience as a distance librarian in the Plattsburgh University of New York State, USA where she is employed to provide library support for the Telenursing Education Program. She believes that the library must make provision for a librarian instructor to work together with the teaching faculty and offer course-related instruction, whether in the teleconferencing class session or as a video or World Wide Web pages. According to her, “librarians and computing professionals must collaborate to allow remote access to the catalog and research databases”.

In providing library services to distance learners in her university, Heller-Ross posits that access is provided via an expansive array of electronic and print resources. These, among others, include “OCLC's FirstSearch databases, CARL Uncover, SilverPlatter's CINAHL and ERIC databases, subject specific Internet resource pages, and all of the Feinberg Library's books, journals, and government documents”. In order to train the students in basic information skills, she maintained that, “information literacy instruction and assistance is provided through librarian site visits, a one-credit library research course, a printed student guide to library services, in-class demonstrations and research tips, and telephone and e-mail reference services”.

A well-known distance education institution in the continent of Africa is the University of South Africa (UNISA). This institution, running a single mode system, has become one of the few mega-universities in the world, providing tuition to more than 120,000 students. In describing the operation of the library in UNISA, Behrens and Grobler (1997) pointed out that the use of the latest information technology is the order of the day at the UNISA library. They declared that the “entire collection can be accessed through an on-line public access catalogue (OPAC) system from any computer connected to the Internet in the world”. Terminals are said to be located in the main library and the branch libraries. These terminals “are supported by a Local Area Network of over 40 databases on CD-ROM and online access to various bibliographic services such as the local SABINET (South African Bibliographic and Information Network) and Dialog”.

Apart from the colossal collection at the main campus, smaller collections are maintained in branch libraries at the regional offices. Behrens and Grobler indicate that students access these collections either by personal visits to one of the UNISA libraries or have the library materials posted to them. They state that students can forward requests by post, fax, telex, by leaving a message on the voice mail or by means of videotext – a service that facilitates communication between staff and students of UNISA.

Realising that only a small percentage of the contents of some books are relevant for some courses, Behrens and Grobler stated that, “books of readings, consisting of periodical articles (or sections from books) are prepared by the library”. Before embarking on this preparation, they noted that “copyright permission for reproduction (with royalty agreements) is obtained from publishers and the relevant items for a particular course are bound together in one volume”. They then disclosed that, “this volume is used in the normal fashion as recommended books for that course”.

Brophy (1997) has provided an account of the implementation of a model in the United Kingdom. The model’s requirements “are the human skills: enthusiasm, commitment, the ability to communicate clearly and vision to create the library of the future”. Among such things that those with skills would perform are writing web pages in HTML and network trouble shooting. According to him, the implementation of the model started with the launch early in 1997 of what was described as the “Virtual Academic Library of the North West (VALNOW)”. He stated that VALNOW was “located at the University of Central Lancashire, but serving users across the whole of northwest England”. With over 20,000 students, library and learning resources services “are delivered through a total of nineteen service points in northwest England” combining traditional delivery with electronic library services. In a report based on a European Commission funded study called “Libraries without walls” Brophy wrote, “VALNOW delivers materials, offers videoconference sessions with subject experts, provides access to remote and local datasets--all through a cooperative network involving librarians from a dozen different institutions”.

A Christian College in Kissimmee, Florida runs a distance education programme to train people for Christian service. Jones (1999) discussed the steps taken by Florida Christian College (FCC) to ensure that appropriate library services were available to meet the needs of the distance learners of the Christian College. The steps, according to Jones, include the following:

- Efforts were made to ensure that some relevant stocks were maintained in satellite libraries. Besides, requests for additional materials were sent to these libraries from the main library.
- Mutual arrangements were made with local libraries to ensure that borrowing privileges were offered to students.
- It was possible to link up to the databases of other useful websites like OCLC and ILL from the Webpage of FCC Library and carry out on-line searching. It was also possible for students to do on-line searching of some other full-text databases from the link provided in the FCC Library website.
- Provision of E-mail, fax, and telephone reference services was also made.
- Students who had to travel 20 miles and above to attend classes were given individual service, which included special instruction on how to effectively use the library website.
- Handouts providing useful information on contact telephone numbers, website addresses of FCC and the Library, as well as instructions on the effective use of library services were given to off-campus students.

With the benefit of hindsight, Jones observed that distance education presents many challenges to the library, and she had advice to offer librarians, stating that “with flexibility and creativity, however, librarians can help move their institutions to a new level of service to the students and communities they serve”.

Whilst discussing the planning process used in implementing library services at East Tennessee State University (ETSU) in the United States, Canepi (1999) explained that the process involved was slow and gradual. Hence she described it as “evolution not

revolution”. As someone charged with the responsibility for creating a plan for library services to off-campus students of the university, she noted three factors that were considered in creating the plan.

First, she needed to know something about the students in Bristol – one of the cities to be served. She found out that more than 40% of the students were over 25 (that is “adult students”), most of whom worked full-time. Second, she considered the array of programmes being offered. She believed that “focussing on specific parts of the curriculum would help identify needed resources”. The third factor was the identification of the greatest needs, which she noted would help in setting priorities. Based on the information she collected from the students, “their primary needs were access to information, convenience (i.e. “Can I get it here?”), and individual assistance, both with using the technology and identifying resources”.

The strategy Canepi adopted was cooperation: “cooperation with the main library, cooperation with other off-campus services, cooperation with other libraries and cooperation with innovators”. In seeking cooperation with the main library, she noted that “anyone working alone to establish library services off-campus needs the cooperation and support of the main library staff. She reminded readers that, “one person assigned to off-campus library services cannot be everything to everyone”. In seeking cooperation with other institution’s non-library service providers, she observed that many departments were also struggling with the same kind of issues as the Library. She, therefore, advocated that various departments could “come to agreements on ways to meet our common needs, such as regular courier service between the sites and more visibility for off-campus services”.

On the issue of cooperation with other local libraries, she believed this was also important. She argued that cooperation among libraries would be beneficial, and that the cooperating libraries stand to benefit from one another. In establishing the cooperation she hastens to add that there should be a memorandum of agreement between two institutions. In the case of ETSU and the Bristol Public Library, the agreement “included

a nominal monetary compensation of fifty dollars paid by ETSU to the Bristol Public Library (a sum that has been negotiated many years prior)". With regard to seeking cooperation with the innovators, she suggested that, "sometimes the innovators, working independently, do things that impact on you, of which you need to be aware". She gave an instance in her own case when "a group of technologically-sophisticated individuals on campus, working with the Distance Education Department, started meeting to plan Internet courses". She was alerted to this and her participation in the meetings "allowed the group to include planning for library support right from the beginning".

2.4 APPLICATION OF ICT IN LIBRARY SYSTEMS

It has been established that the nature of distance education in general prevents the students from visiting their university library, speaking with their lecturers or tutors, enjoying direct consultation with the library staff or holding regular and sustained discussions with fellow students. Appleton (1997) in her account of how to reach the remote student regretted that "remote students cannot browse the academic collections of their university and they are unable to make personal selections from the library materials held by their university". Her concern was that the remote students "are forced to rely on others to make decisions on several aspects of their use of the library and information materials". She came to the conclusion that one of the effective strategies to counteract the difficulties is the development and use of electronic library services. These services have been made possible by means of modern information and communication technology.

The advent and application of information and communication technology (ICT) within the past decade has irrevocably heralded some radical changes in educational patterns all over the world. It has created a new dimension in the orientation of all distance education providers, be it the tutors or teachers of distance learners as well as the librarians and libraries of distance teaching institutions. It is, therefore, no wonder that the converging technologies, the rapid development and widespread acceptance of the Internet, and the application of the World Wide Web in education have created an indelible impression in

the development of distance education programmes in the last decade. They have also revolutionised the dispensation of library and information services within the same period.

In presenting a paper during the celebration of ten years of the Commonwealth of Learning (COL), the Vice chancellor of the Open University, John Daniel (1999) declared that, “the hot technologies have changed”. Recounting his experience, he recalled with nostalgia that, “when COL was born the satellite star was in the ascendant”. He went on to remark that “today, if you are not living and breathing the Web you are a technological cave dweller”. Going further down his memory lane, Daniel noted that, “three years ago, in the United States at least, distance learning meant videoconferencing. Today in the United States at least, distance learning means the Web”. He then regretted that there was a problem since the vast majority of the population of the Commonwealth had never engaged personally with either videoconferencing or the Web.

As Daniel observed in 1999, perhaps there has not been any significant change today in the Commonwealth, particularly in Africa. Thus, as if in sympathy with the regrets expressed by John Daniel, Anikulapo (2001) citing a group called Technological Forum at a recently concluded fifth Pan African Historical Theatre Festival (PANAFEST) in Cape Coast, Ghana, deplored the “lack of enthusiasm for technological development of the continent among the leaders”. The group, he said, noted that the absence of concern about information technology (IT), “particularly among the leadership has been identified as portending danger to the development of the continent”. They therefore counselled that “if Africa is to remain relevant in a world that is increasingly dismantling all barriers, its leaders must rethink and place a premium on how to address the dearth of knowledge of information technology”.

In focussing on the application of IT to, and its usefulness in, the library environment, Kanjilil (1997) perceived each new technological development that takes place as having an impact on libraries and information services. IT, he asserted, has affected most of the routine operations of the library and information services such as circulation and

cataloguing. He noted the advantages of IT in a library, and these according to him include “a reduction in time required to carry out routine tasks; the opportunity to improve record keeping procedures and ability to link intra- and inter-library activities in an unprecedented way”. He also reiterated the fact that “IT enables the integrative nature of library services to be actualised, thus eliminating the need for traditional departments such as acquisitions and cataloguing as it allows these activities to be executed from the same workstation”.

Watson (1998) in her account of the expanded use of technology to provide distance library services maintained that the convergence of technology and communications offers distance education institutions an array of options to deliver library and information services. She stated that the expanded use and role of technology in the delivery of library and information services has served to reduce the barriers to library and information services that are occasioned by distance for these students. She argued that in order to take library services to distance learners many libraries in these institutions have placed most of their services on-line. According to her, “the digitization of information makes it possible to take library and information services to distance students regardless of their location”. She contended that in addition to on-line catalogues (OPACs), students are able to search databases, examine abstracts and in some instances read full text documents. She concluded that, “some of these networked services also include non-print resources in their information databases”.

In her own submission, Heller-Ross (1999) observed that, “the new electronic information environment is pushing many libraries to re-think their services and re-engineer their organizations”. She gave details of how libraries are collaborating with computing and technology centres to facilitate the use of information and technology at their institutions. She argued that, “distance-learning programs may provide opportunities for institutions to grow and for librarians to broaden their role in the teaching/learning process... and that “electronic resources seem to have enticed more students and faculty into the library's virtual spaces, where they are demanding virtual service and instruction”. She was emphatic in disclosing that on-line courses are offered to both on-

campus and distance learning students, with on-campus faculty creating World Wide Web pages with course materials, and that e-mail is ubiquitous. With the advantages of technology in library she posited that, “the lines between on- and off-campus students and courses are indeed getting blurred as technology is incorporated into all aspects of education”. She, therefore, argued that, “in this environment it makes sense to take advantage of this blurring and melding to improve library services for all students and faculty”.

It should be noted that prior to the evolution of ICT, the option normally available for the distance learners was to go to a public or an academic library in order to obtain the information they needed. Today it is no longer problematic for students from distant places to gain access to information, as long as there is a computer, a telephone line and a modem available. It is, therefore, possible for students to obtain most of the information they need through on-line access to catalogues and other electronic databases via the Internet. These tremendous possibilities have prompted Barnard (1999) to suggest that, “because of the technological advancements, academic libraries have seen a distinct shift in the way that much of their information has been made available over the past few years”. On the fate of reference sources, he maintained that, “journal indexes, encyclopaedias, and many other databases have become virtually extinct in print form with the proliferation of digital resources”. Barnard argued that “even these digital media have quickly moved from stand-alone CD-ROMs to local area networks within libraries, then to campus-wide area networks, and finally to World Wide Web sites on the Internet”. He concluded by declaring that, “with the advent of these information media has come the ability to provide more library services to distant students, while minimising the need for travel to a campus library”.

It is generally recognised that the application of ICT cuts across both the developing and the developed worlds. It is, however, obvious that the rate of deployment of the new technologies is much slower in developing countries. This was confirmed in the observation of Cavanagh and Tucker (1997) when they noted that in advanced countries emphasis on the provision of services to distance students is turning increasingly towards

electronic access to libraries and their resources. This, they maintained, starts with “the use of electronic mail and dial-in access to university and college catalogues to place orders for materials”. They stated that this is complemented by access to on-line subject specific databases, CD-ROM networks, and the vast array of resources available through the Internet, as well as by access to full text databases and journals. The use of IT in the library environment, particularly in the developed world, will be dealt with below.

In general, it is obvious that the last decade has witnessed dramatic transformation in education, culminating in the evolution of virtual universities made possible with the advent and application of these technological devices. Stallings (1997) gave an account of the virtual University of Phoenix, which is said to have an enrolment of approximately 55,000 students most of whom are working adults. They have no physical library collection, so all their library services are offered on-line, or through document delivery. The University is said to have claimed that its on-line library collection provides access to millions of articles from nearly 4,000 journals. In addition, a free bibliographical search service is available, although there is a charge for delivery.

At the University of Washington, where the School of Social Work was chosen as a ‘guinea pig’ department to run distance education, computer terminals were installed in places called public access areas for students to access e-mail accounts and library resources. Also, library rooms and facilities were used for telephone conferencing, group meetings, and videotape viewing (Lee, 1999). In order to facilitate giving a human face to the seemingly faceless learning mode, and perhaps to allay the possibility of technophobia, Lee reported that two days of orientation were arranged for students. During this period, instruction focused on using the computer and locating library resources. Topics covered, according to Lee, included “logging-in to the computer, using email, searching computer databases, requesting documents, and accessing reserve materials including accessing to library resources from home (connecting and installing software)”. A library information packet was produced and handed out to students and library staff for reference and referral.

One of the lessons learnt from the experience of Lee is that the libraries of distance learning institutions need to move toward the direction of electronic formats for many of its resources. This movement includes “increase online databases and full-text resources, develop electronic reserves, and design web pages for academic courses (e.g., course syllabi, readings, etc.). She counselled that the library should work with the computing offices to appraise student computer needs and site accessibility. She advised that “ideally, computer labs with sufficient numbers of computers should be made available to distance learners at the outset of any program”.

With the help of modern technology, Heller-Ross (1999) also suggested that distance-learning faculty and students search the same library catalogues and journal indexes from their home computers or distance site libraries, as do on-campus students. Drawing a comparison, she wrote, “but where on-campus students must come to the library to retrieve and check out books, and make their own photocopies from journals and reference books, distance-learning students are provided with photocopies and book loans that are mailed to their homes”. Heller-Ross stated that distance-learning students should identify themselves when calling or e-mailing for assistance, so that Feinberg Library staff, when dealing with their requests, will ensure rapid delivery of needed resources. She had some advice for library staff: “Staff need to take extra steps to fulfil the promise of equivalent library services for student academic research”. Drawing examples from what obtained in her library, she noted that “since delivery time will add a few days to Interlibrary Loan (ILL) requests, the ILL staff instituted a policy of requesting that DOCLINE lending libraries or document suppliers mail photocopies directly to students whenever possible”. This policy, according to Heller-Ross, reduced turnaround time by an average of four days and was easily implemented.

Meacham and Macpherson (1997) also reported that a number of Australian university libraries provide on-line access to catalogues of their own and other universities for distance students who have access to a compatible personal computer and a modem. Also writing about information technology and library access to off-campus students in Australia, Marie-Therese (1997) noted that, “there is an array of technology-based

information services that can overcome the perception of tyranny of distance and lack of immediate access to library resources and services”.

Electronic mail or the e-mail system is seen as a considerably cheaper IT instrument capable of breaking the tyranny of distance between distance learners and their universities, and indeed between the learner and the library/librarian. Cuskelly and Gregor (1993) did an evaluation of e-mail and found that it gave increased opportunities for quicker and more frequent feedback to students’ queries. It was also observed that, “E-mail reduced the feeling of isolation experienced by many distance education students”. E-mail was also found to provide additional social dimensions to the learning context.

In their search to bridge the gap between distance students and their university libraries, some Australian universities adopt the use of e-mail. Marie-Therese (1997) reports that Deakin, Edith Cowan and Monash, to differing degrees, have introduced something akin to a simplified, student focussed Internet. This, she wrote, “enables off-campus students to interrogate not only on-line databases, but also allows them to use electronic mail and bulletin boards to quickly and effectively communicate with, and obtain services from lecturers and library staff”. She further maintained that through electronic mail, students can ask for a range of information and services, and that for library staff electronic facilities both “speed up response time in reacting to student demands and provide an efficient electronic conduit to answer queries”.

Appleton (1997) gave details of the test on the provision of electronic access and delivery of information to remote postgraduate distance education students at the University of Central Queensland over an 11-week period. She disclosed that students were instructed on how to use the library’s e-mail system and were given access to it. She also reported that dial-up access to CD-ROMs, the library’s catalogue and external networks was also made possible. She suggested that, “articles requested during the trial period were scanned and sent to students’ E-mail boxes”. The results indicated that students were

prepared to use electronic communication, but that they are easily frustrated if they cannot connect quickly.

At this juncture, it is important to sound a note of warning pertaining to the apparent advantages of technology in curtailing the distance between distance learners and their institutions. It must be remembered that accessibility to technology is not universal, nor is the use of the systems on the same level globally. Earlier we mentioned the observation of John Daniel, a veteran in distance education. He observed that distance learning of three years ago in the United States was far different from distance education of today. He said that distance education of the time past in the U.S.A. was videoconferencing, but recently, it is the Web. John Daniel's lamentation was that majority of people had no experience of either videoconferencing or the Web.

Anikulapo (2001) cited Danqua, the head of a computer literacy and distance-learning programme in Ghana, recounting the technological disparity between the US (a developed country) and African countries (the developing world). He declared, "while Africa accounts for 12 percent of world population, it has less than one percent of Internet users, America which accounts for less than 10 percent of the world population, has 50 percent of Internet users". He then asked, "How can we expect our people to compete with the American people; or our children to compete with an average American child?"

The contrast in the technological application and diffusion between the developing and developed world has prompted authors like Watson (1997), and Cavanagh (1997) to sound a cautionary note that total reliance on technology, particularly in the developing world will cause some distance students to experience "information disenfranchisement". While also noting that the emerging developments in information technology that relate to library provision have the potential for greatly increased access, Meacham and Macpherson (1997) concurred that there is a danger that less wealthy students of the universities will be denied access to information. On a wider scale, they fear, that members of whole societies and even countries will be denied access to information if a

prerequisite is the financial capacity to purchase a computer. It was this fear that caused Adams (1998) to state that “one concern that I have personally for the future of off-campus library services involves the drift towards [the] increasing disparity between the technology-rich and poor”. Meacham and Macpherson noted that the use of such systems requires students to make an individual investment in a personal computer, and pay the telephone charge for access to the university.

In the light of the above, it is suggested that while technology can be used to bridge distances and reduce the entire world into a global village, it can also be seen as an instrument that can increase the yawning gap between the “haves” and “have nots”. Watson has therefore urged librarians and others to integrate other modalities of communication and service delivery to ensure that all distance students have access to information services for their studies. She noted that this is particularly important in developing countries where distance education is a potential channel for expanding educational opportunities, but where access to technology is extremely limited and confined largely to large urban areas and to those who have the financial means to purchase technological and communication services.

2.5 THE ROLE OF THE LIBRARY IN DISTANCE EDUCATION

In Chapter 1 we summarised the most commonly used models in distance education citing their traits and, or characteristics. The literature giving the views of authors, and some case studies of how library services were provided in some notable institutions where distance learning or off-campus programmes take place, has been examined. At this juncture attention will be given to how the library should perform its role and service to the distance learners from a holistic perspective. In the discussion the ways in which the library and information services could provide for distance learners, and the suitability of the methods to the models will also be considered.

The philosophy of education of any institution usually constitutes the framework under which its library operates. Once such institutional philosophy is clearly expressed, all the

stakeholders - including the library - work towards meeting the goal. A student-centred philosophy will ensure that adequate attention and support is given to the student irrespective of whether s/he is on-campus or off-campus. Brown (1985) gave credence to this when he asserted that, “the role of the library within a College or University can be understood only in the context of the institution’s philosophy of education”.

Generally, library support is an obligation that an institution takes on when it begins extension courses as in distance education. In performing the expected role, the library must take cognisance of some of the distinctive features of a distance education programme. The most distinctive characteristic of such a programme is the geographic dispersion of the students. As against practice in the traditional classroom setting, the students rarely come together as a group in the same location. Often, many kilometres separate students taking the same course. Relevant to the above is the fact that distance education programmes have appeal to learners not only in urban centres, but also in rural and non-metropolitan areas where library services would also be needed. Furthermore, the learners are usually adults and busy people, often with many occupational, domestic and social responsibilities. They prefer to pace their study in the light of their normal activities and restrictions.

Even with the above in view, the demands of equity and fair play, particularly in a dual mode system, requires that timely access to reading materials should be given to all students pursuing the same course at the same time. It remains to say that if distance education or off-campus students are unable to access library facilities they are disadvantaged.

There is no gainsaying the fact that the quality of any academic programme can only be enhanced when adequate library facilities are accessible. The features of an institution’s distance education programme are such that its library should develop specialised strategies to enable the scattered and busy students enrolled to have access to library facilities. Taking the above into consideration, the question now is how can library services be effectively provided and implemented for distance education programmes?

2.5.1 GOOD WORKING RELATIONSHIP WITH DELIVERING AGENCY

Perhaps, we should begin by saying that the library would be greatly assisted if the delivering agency (the DEU in the case of the University of Botswana) would see the library (UBL) as a close partner in pursuing the goal of taking the university to the community. This means adopting Canepi's (1999) strategy of cooperation with other off-campus services discussed above. The library must not be seen as an isolated entity but as part of a complete whole. In any case, the provision of a distance education should exemplify team-work. If it is team-work the library must be seen as an active team member. This collaboration involves the establishment of a good working relationship, even at the planning stage, between the library and the project team, the course specialists and the delivering agency.

Davidson (1999) demonstrated the need for close collaboration between the library and the faculty when she stated: "You need to know the faculty teaching those classes. These folks are your (librarian's) key to successfully serving your off-campus students". Irrespective of the model in place, it is necessary to determine such things as the library needs of the user; the library facilities available; the likely number of students in each course of study; where the students are located, working or living; and materials to be included in the course package for further reading. The librarian needs to have foreknowledge of the assignments to be done and the deadlines for submitting them. For instance, the advantage of foreknowledge would enable librarians to adequately prepare themselves to deal with students' enquiries. They could then collect the relevant materials/information on the topics prior to the time they are needed, and produce enough copies of the materials so that they could be sent out to students as soon as requests are made. The implication of this is that the librarians need to be involved with the curriculum developers during the preparation of the modules or course materials so that there is full knowledge of what is expected. An illustration given by an author would probably be required here to illustrate specific reasons for the need for advance knowledge and, or expected demand. He claimed that a librarian would be uncomfortable

if there was insufficient information to deal with requests from possibly 150 distance education students who are faced with a deadline of two weeks. The library's outreach services can only operate effectively when expected demands are known.

When proper interaction is established the librarian could, during the course or module preparation, give bibliographic assistance to subject specialists and course writers. Help could be given in conducting literature searches in subject areas and in selecting articles for required and supplementary reading that may be included in the course package. Obviously the establishment of a good working relationship with the library, and involving it in assembling course packages for distance education students could save the delivering agency both time and money.

2.5.2 RANGE OF LIBRARY SERVICES TO OPEN AND DISTANCE LEARNERS

The peculiar nature of a distance education programme requires that specialised library services be provided for the students. It has been established through the literature reviewed above that the range of services which the library can offer to distance learners, irrespective of the model put in place, include such services as the production and distribution of leaflets describing library services, and dealing with telephone catalogue enquiries and telephone reservations. Others are renewals by telephone, a 24-hour answer phone and a freephone as practised in some institutions in advanced countries of the world. Services may also include responding to fax queries, granting longer loan periods or renewals (where affordable), undertaking literature searches requested from a distance, and photocopying and sending articles by post.

For the convenience of distance education students, it is imperative that a telephone with an answering machine be installed in the library for the use of these students. This service should operate twenty-four hours a day. Indeed, an answering machine is necessary to take calls and record information and requests. Johnson (1984) is one of a number of authors who has highlighted the importance of the telephone to off-campus students. He

maintained that the telephone serves as a connecting bridge between the distance learners and the library. It could also serve as an alternative for the students who may not be able to come into the library and select their material. There are many examples of institutions where a toll free telephone line is installed for the use of distance education students. It is the belief of the author that all delivery models require a telephone service in the library.

2.5.2.1 Contractual arrangement/Collaboration with other libraries

In view of the geographic spread of distance education students, the use of regional centres is a common feature of external programmes. Branch libraries could be established in these centres. But, for obvious reasons, it is not always possible to provide extensive library facilities in all of them. In order to cater for such disadvantaged areas, there is a critical need for the library of the institution delivering a distance programme to maintain formal relationships and collaborate with other libraries. Davidson (1999) advises that librarians need to know which libraries are available to students, where they are located and what resources they have. Such libraries could be public libraries, education centre libraries, college libraries or other academic libraries in regional centres or elsewhere in the country. Forging formal relationships with other libraries would enable them to assist distance learners in whatever way they could. Davidson suggested that the most important thing that could be done is “get in touch with your victim libraries, especially those in areas where your off campus students are concentrated; talk with the local librarians and explain your programs in their area and your desire to support those programs without becoming a burden on them”. She stressed that a formal operating agreement should be drawn. Jones (1999) also indicated that one of the six pillars on which his library provision for distance learners is based is that “a local library is contacted to make arrangements for reciprocal borrowing privileges for extension site students”. Thus, among other things, students can channel requests to their institution libraries through these other libraries. Furthermore inter-library loans could also be put in place for the sake of the learners.

It can be seen from the above examples that collaboration empowers groups of individuals or organisations to pool their resources, to share them and thereby assist one another. This approach would particularly assist scattered distance learners as they would be able to obtain needed information and assistance, not only from their institution's library, but from other libraries as well. Collaboration among libraries is aimed at sharing resources and enhancing the quality of learner support services in distance education.

2.5.2.2 Mobile/Travelling library

Another way of bringing library and information services brought to the doorstep of distance education students is through a system of travelling or mobile libraries or bookmobiles. Meadows (2001) gave an account of such operations and commented that, "rural bookmobile staff park at a wide variety of sites while on the road". According to Meadows, "the most common sites in a town or village are churches, grocery or general stores, schools and post offices". She added that "outside the towns or villages, main cross roads, rural schools, country churches and individual homes are the most used sites for setting up a bookmobile stop". Travelling libraries can thus be seen as a resource for readers in remote villages, hamlets and other rural areas (Gunter, 1985). It has been observed that distance education programmes appeal to people in rural and non-metropolitan areas. Students can be informed well ahead of time of the schedule when books are taken in vans to various places in the remote areas where distance education students are based. Grunenwald (1987) provides five critical variables that a bookmobile operator needs to consider. Four of these variables, which are pertinent, are as follows: product selection; selection of the stops and the time of the day the bookmobile will be there; facility management that ensures that vehicles are dependable; and promotion of the service. It is important for a library operating a mobile service for distance learners to pay special attention to these factors if an effective performance is to be achieved.

2.5.2.3 Book box system

Another library service that can be applied to the advantage of distance education students is the provision of a collection of books for each course, otherwise known as the "book-box". If the establishment of a permanent library is not feasible at all the regional centres, arrangements can be made for a collection of books to be left there for the use of students in the vicinity. Sending books in boxes has been described by Wilgus (1987) as "an adaptation of the English tradition of travelling libraries, a resource to readers in remote villages and hamlets". Students may borrow from this collection, which is retained at these centres for the duration of the course. Usually, not only relevant books are provided, but a wide range of learning materials like records, tapes, video-cassettes and maps are also supplied. Care has to be taken to ensure that the required books are made available at the time they are needed.

It is important to note that deposit collections or the book-box system has generated some controversy. The arguments against the system are that "the provision of a relatively narrow range of texts is capable of inhibiting students from exploring their subjects fully through the breadth of materials available in a library. Secondly, that the amount of use of such collections is relatively low" (Drodge, 1984). On the other hand, the arguments in favour of the system are that "most of the materials in these collections are usually not readily available in either bookshops or in public libraries, and that the system meets the resource requirements which would otherwise go unmet". It is a premise of this study that the system would go a long way in meeting the minimum information needs of distance education students.

2.5.2.4 User education and information study skills

In order to equip students to be able to make effective use of the library resources, Library Use Education is necessary. ACRL (2000) has recommended the teaching of ILS to distance learners. As demonstrated in the characteristics of the models discussed earlier, it should be borne in mind that distance learners come from different educational backgrounds. Some may have had only a primary or secondary school education in which

there was no serious training on how to use library facilities. As a result, except for the challenge model where the targets are mainly postgraduate students, library use education or an information literacy skills programme would be required in other models.

The resource based learning/flexi-study model targets adult secondary students or adult tertiary students. The supervised study-group model has out-of-school young adults and adolescents as its targets. The in-school media enrichment model focuses on the in-university students. The educational background of each of these categories of students is generally insufficient for them to know how library and information centres operate. They would need the incorporation of an information study skill programme in their studies whereby they would learn to make the most of ICT and other facilities. It must also be appreciated that modern day libraries are assisted by computerisation, unlike the manual practices previously used.

Even in cases where distance learners are still working in school environments, training or retraining in library use and information literacy skills is still required. There are many reasons why this is necessary. First is the fact that new information and communication technology is now used in many libraries and most students, particularly those in the developing world, are not familiar with current developments in the modern library. Even when they have good educational backgrounds prior to enrolling for further education by distance mode, this does not guarantee that they had exposure to computers in their school days.

Second, experience has shown that not many students, after leaving school, continue to read books or use libraries. A study conducted by the CCE of the University of Botswana of its potential students for the distance education programme revealed that a clear majority of deputy headmasters had, over the previous four years, not bought a single book for the past four years, or read a book, or even visited a library. They were not even members of the Botswana National Library Service from which they could obtain reading materials at no cost. Yet these are some of the people expected to be students of distance education. This study should convince the stakeholders involved in this programme that a

library use education and information literacy skills course is essential for the success of quality distance education programmes.

A number of authors including Watson (1997), Cavanagh (1994), Caballero (1998), Slade (1997) and Lee (1999) have made submissions on library use education or bibliographic instruction in distance learning. Slade (1997), for instance, placed emphasis on “the provision of instruction on how to conduct effective searches of electronic products”. Lee (1999) stated that her library “provided useful library instructions to students and gave hands-on demonstrations” She added that, “instruction focussed on using the computer and locating library resources”. According to Lee, “topics covered logging-in to the computer, using email, searching computer databases, requesting documents and accessing reserve materials”. In her suggestions on bibliographic instruction to distance learners, Watson (1997) wrote that “visits to remote sites by professional librarians are sometimes used to provide bibliographic instruction”. The library, with the cooperation of the delivering agency, should therefore develop necessary strategies, not only to get distance education students acquainted with the operations of the library, but also to ensure that they acquire life long information skills.

2.5.2.5 WWW and the Internet

The World Wide Web (WWW) is an extensive technology with a vast network of connected computers. WWW-based learning activities can be considered as activities where information is sought and accessed across the network. As an interactive and communication technology, WWW offers facilities for information storage and easy delivery. Perhaps this last function makes it an invaluable tool in the effective operation of open and distance education. Lehnert (1999) confirmed this when he wrote that, “until the early 1990s, the Internet was used by scientists and academics pursuing long-distance collaborations and scholarly research”. After suggesting that the real force that shapes the Internet are the people who use it, Lehnert observed that, “today’s Internet is a global assemblage of over 40 million computers in rapid intercommunication”. He explained

that an estimated 150 million people are active Internet users worldwide operating “as either information consumers or information providers”.

The role of the technological medium in open learning and distance education cannot therefore be overemphasised. The interpersonal communication existing between teacher and student in the traditional system has to be replaced by some form of mechanical or electronic means of communication in distance education. Hitherto the dominant means of communication highlighted by authors like Keegan (1996) and Holmberg (1989) were print, audio, video, telephone and broadcasting. The recent advent of WWW, with its diverse features, has universally added a new and profound dimension to the provision of open and distance education. Among the features of the WWW that makes its application indispensable to the providers of open and distance education are:

2.5.2.5.1 Information access

The key feature of the WWW documents that are primarily designed to carry information is that the materials and documents are usually electronic versions of existing paper-based information and courses. According to Oliver and Omari (1997) the reasons for delivering such materials via the WWW appear to derive mainly from:

- Information accessibility, whereby teachers could post information that could be accessed by students across many locations;
- Reducing printing, because teachers could provide electronic rather than printed documents for students;
- Information could be delivered in time, and teachers could post materials before lecture and workshop sessions for immediate access by students.

2.5.2.5.2 Interactive learning

In an interactive learning environment it is possible to provide a series of documents rather than a page for students to read. This is done through the use of hyperlinks

available on the WWW. Oliver and Omari (1997) have identified some of the various forms whereby interactive learning takes place. These include:

- Activities that require students to search and review documents and links in a structured and organised fashion in order to discover particular information;
- Presenting questions and activities that cause students to reflect and to select from among various outcomes. Feedback particular to the students' choices is provided and this influences subsequent directions and activities;
- Using forms, whereby students can select options to effect particular processing outcomes, such as database searching;
- Use of programme modules supported by the WWW that enable learner input to be processed and acted upon.

2.5.2.5.3 Networked communication

The WWW features and uses different forms of communication, which can be used in numerous ways in a student-centred learning environment. Some of these forms of communication are categorised below:

- E-mail enabling people to communicate directly with each other, and to send private or public messages to each other either in a one-to-one or one-to-many mode;
- Bulletin boards where information can be placed for the consumption of the public, and their reactions or remarks invited;
- Chat sessions involving real-time text-based discussions between parties either privately and. or in public.

It is, perhaps, unnecessary to state again that the WWW or the Internet is applicable in the library environment in virtually all the areas identified above, and can be used by distance learners. Just as education is taken to the doorstep of the students in distance education, so the library is taken to the homes of students. Thus, in order to make

information accessible to students and in a timely fashion, the feature of WWW information access would be very useful for a library.

Searching through the on-line public access catalogue of a library and the networked on-line catalogues to gain access to the catalogues of other institutions is a process that involves interactive learning. Typical examples of the latter include America's on-line computer library center (OCLC) as explained by Jones (1999) and the Southern Africa bibliographic network (SABINET) as in Southern Africa. The Internet/WWW-based computer mediated communication feature would be required by any library using electronic mail, and bulletin boards to communicate directly, either on a one-to-one and, or a one-to-many basis. Though the degree of use may differ, the library will require the application of the invaluable features of the WWW/Internet in the provision of adequate library and information services in all the models discussed above.

2.6 SUMMARY AND CONCLUSION

It has been established through the review of literature that the library plays a significant role in distance learning. It is a great deficiency if library and information services are not readily available for distance learners. These services provide many advantages and enhance the quality of distance education. The disadvantaged position of distance learners and the imperative need to make available library facilities to them have compelled some organisations to establish guidelines on library services for distance learners.

A number of institutions across the globe have attempted to cope with the difficulties faced in providing library and information services to the scattered students of distance education. The expanded use and role of technology in the delivery of library and information services, and how technology has served to reduce the barriers to making library and information services available to students and distance education programmes has been noted. Using these technologies could be of great use to any library, particularly

in developing countries, that may be planning the provision of library and information services to its students on distance education programmes.

In chapter 1, we dealt mainly with statement of the problem, objectives and hypotheses of the study. In this chapter (chapter 2) we conducted the review of the literature. Before discussing the results of this study, the research methodology shall be explained in some detail. Hence in the next chapter (chapter 3), the research methodology is discussed.

CHAPTER THREE

3 RESEARCH METHODOLOGY

3.1 BACKGROUND INFORMATION

It will be recalled that in Chapter 1, the statement of the problem, objectives and hypotheses of this dissertation, among others, were discussed. In this Chapter, the research methodology is explained.

In explaining the research methodology, it must be stressed that the University of Botswana Library (UBL) has a commitment to give support service to all academic programmes of the university, irrespective of the mode of delivery. In fact the mission of the UBL is to contribute to the University's endeavours in the advancement of learning and academic enquiry. It aims, among others, to:

- foster a caring and supportive environment in which service to customers is paramount,
- to efficiently process, preserve, provide access to and/or disseminate information available in-house or through international databases,
- to equip customers with the necessary skills which allow them to exploit the various information sources in support of present and future needs, and
- to respond speedily and appropriately to academic support needs and expectation of students and faculty.

Adapted from UB Calendar, 2000.

Since the distance learners are among paramount customers of the UBL, and knowing the nature of the distance education programme, what caring and supportive environment has been put in place for this group of library users? How have they been equipped to exploit

various information sources in support of their present and future needs? What has been the level of involvement of the UBL in the distance education delivery mode of the UB? How far have the goals set been met by the UBL in respect of the distance learners of the university? What degree of cooperation exists between the DEU and the library in the discharge of their various services to the distance learners of the university? The research methodology adopted is meant to throw a searchlight on these issues indicated above. Three groups of people were considered the major stakeholders affected by these questions and these three groups were approached during the course of this study. Their responses would, it was hoped, provide answers to these questions.

A two-pronged research method was adopted in order to do justice to this study.

3.2 STAGE 1: INFORMAL APPROACHES

The first stage of the investigation fell within the domain of **exploratory research**, and three approaches were involved. These comprised:

- a) Current journals, appropriate books, relevant proceedings of conferences, commissioned work and the Internet were consulted for relevant articles and information on:
- distance learning and library provision,
 - distance information and library services as practised in some institutions around the world, and
 - the application of information and communication technology (ICT) in library systems.

This exploration was intended to assemble secondary material to gain greater background knowledge and understanding of the subject.

b) A structured interview schedule was used to collect data. In conducting this interviews were arranged with:

- DEU staff who are the providers of distance education at the UB, and
- Library staff, who are directly in-charge of providing library and information services to the distance learners.

c) The empirical element of this research was conducted using a questionnaire. These were administered to

- Diploma in Primary Education (DPE) students, and
- Certificate in Adult Education (CAE) students.

The questionnaires to the DPE students were self administered, whereas they were mailed to the CAE students.

3.3 STAGE 2: PRIMARY RESEARCH DESIGN

The approach applied to this second stage depended on the knowledge derived from the informal research discussed above. The primary research design adopted was both descriptive and exploratory. Descriptive research, according to Gall, Borg and Gall (1996) “is a type of quantitative research that involves making careful descriptions of educational phenomena”. Ary, Jacobs and Razavieh’s (1990) description is relevant, as it looks more detailed. They maintained that descriptive research “describes and interprets what is. It is concerned with conditions or relationships that exists; practices that prevail; beliefs, points of view; or attitudes that are held; processes that are going on; effects that are being felt; or trends that are developing. Its major purpose is to tell what is”.

Our motive in this study was to obtain a picture of the practices that are prevalent in the attempt of the UBL to provide library and information services to distance learners of the UB. Mouton & Marais (1990) also declared that, “one of the most important considerations in descriptive studies is to collect accurate information or data on the

domain phenomena which are under investigation”. This consideration would be met as the involvement of the UBL in distance education programmes of the DEU is explored.

Referring to exploratory research, Wright and Crimp (2000) declared that “exploratory research is appropriate for asking questions of: customers – collecting information on needs and wants relevant to the research problem”. This exploratory stage provided the researcher with first hand information, and assisted in developing an intuitive grasp of what the aims and objectives of this study should be. At the same time this process helped to clarify the hypotheses used as a basis for the study.

3.4 SAMPLING PROCEDURE

It has been established that the main aim of this study was to carry out an investigation of the role and involvement of the library in the provision of distance education at the University of Botswana. It became necessary to choose a sample that ensured adequate representation of all the major role players in the constituencies involved.

Naturally, the study was focussed on the students, who are the primary users of the library. Therefore one of the groupings of subjects was the students, the distance learners of the university. Students who are directly involved in this mode of learning were in the best position to inform the researcher as to what their experiences have been. The distance learners were therefore the first targets. In addition, the outreach arm that is responsible for taking the University to the students is very important. The DEU is a major stakeholder and was therefore involved as the provider of distance education. Also important, and included as a group, were the librarians at the UBL because of their role and involvement in the provision of support services for distance education students.

The distance learners of the university fall into two categories, according to the programme on which they are enrolled, namely the DPE and CAE programmes. The latter is a two-year course and was the first programme to be established by the distance-learning mode at the UB. It came into existence in 1983. Adekanmbi (1998) wrote that “the intakes used to be admitted every two years”. Although this was later changed, the

CAE programme had, at the time of this study, the least number of students as the programme is in the process of being phased out. It has a total number of only eighteen students – all in their second and final year. No students were admitted this academic year.

The DPE programme was introduced two years ago. There are presently two intakes of students on the programme. The first and the second cohorts admitted each consisted of 600 students. The programme therefore currently has 1200 students on roll.

The scattered nature of distance learners and getting the students to complete the questionnaires was the biggest problem. Coincidentally information was received that one of the thrice-a-year residential programmes normally organised for DPE students was going to be held about the time when the questionnaire was ready to be distributed. This residential programme also afforded the opportunity to meet them. From this group 382 students were randomly selected to complete the questionnaire.

There was no residential programme for the CAE students that could have made this group available for distributing the questionnaires. But since there were only 18 students, it was decided to mail the questionnaires to elicit the needed information from them. The implications of this method were known. For instance, authors like Shao (1999) and Churchill (1987) have discussed the advantages and shortcomings of mail questionnaires.

The shortcomings of this approach include:

- Use of mail questionnaires allows little or no control over timing.
- A mail questionnaire does not permit the use of questions that require extensive probes for a complete response.
- Mail questionnaires allow the researcher little control in obtaining a response.
- There may be no response.

The advantages of this approach include:

- Respondents are able to work at their own pace, and therefore have adequate time to consider their responses.
- There is no interviewer bias.
- It is low cost relative to other methods, like a personal interview.

To limit the shortcomings of the mail questionnaire and to improve the response rate from the CAE students, the researcher decided to contact the 18 students involved by telephone to alert them that the questionnaire had been posted to them. The students were informed about the purpose of the questionnaire and of the importance of completing and returning it in good time. Altogether 400 questionnaires were administered to the students – 382 to the DPE students and 18 to the CAE students.

With regards to the DEU and the library, two separate questionnaires were constructed. In each of the two departments, it was observed that most of the responsibilities rest with two individuals who are professionals. These individuals from the two departments were interviewed using the questions devised. They proved to be keen participants when interviewed by the researcher.

In summary, many of the participants, including those reached via mail (details of which are explained under ‘Analysis of Data’ in 3.7) demonstrates showed enthusiasm in participating in this research.

3.5 QUESTIONNAIRE AS THE RESEARCH INSTRUMENT

The main way of obtaining the relevant data for this study was through a structured, self-administered questionnaire.

In adopting the questionnaire-based exercise, there were some salient issues that had to be taken into consideration. These include:

- The scattered nature and the large number of the sample made it impracticable to conduct a study that was interview-based. Interview-based research is time consuming, and as the DPE students were together as a group for less than two weeks for tutorials, revision and examinations they had no spare time. In the case of the CAE students, they were simply not available for being interviewed.
- The questionnaire format makes it possible for respondents to freely express their views, opinions and ideas on their experience in writing. Therefore it was decided to adopt the questionnaire research for this study.
- It was considered that the anonymity of a questionnaire would help elicit more satisfactory information than would an interview-based method. This claim appeared to be corroborated by the assertion of Sorensen (1973) cited in Dreyer (1980) when he wrote that, “the questionnaire is preferable since it avoids the embarrassment of direct questioning and so enhances the validity of the responses”.
- The structured questionnaire is a universally accepted mode in various disciplines to elicit information for research purposes. It is, therefore, probable that the necessary reliable theoretical and practical requirements of the investigation being conducted would be met.

Before setting out to use the research instrument, the author was aware that the questionnaires would have to be either distributed by hand or sent by mail. He therefore familiarised himself with the writings of authors like Shao (1999) and Cohen and Manion (1989) as to what should constitute a good questionnaire. Writing on what should form the aggregate of an ideal questionnaire, Cohen and Manion declared that, “an ideal questionnaire is unambiguous and uniformly workable. Its design must minimise potential errors from respondents and coders. And since people’s participation in surveys is voluntary, a questionnaire has to help in engaging their interest, encouraging their co-operation, and eliciting answers as close as possible to the truth”.

Weiers (1984) also wrote on mail questionnaires saying that “a mail questionnaire must be made attractive to the potential respondent, and appear simple and not too time-consuming to complete”. On the proper selection and ordering of questions, Lovell and

Lawson (1970) maintained that “presenting respondents with carefully selected and ordered questions is the only practical way to elicit the data required to confirm and or disconfirm a hypothesis”.

The issues raised above by various authors were therefore taken into consideration in the design of the questionnaire. It was decided to design a structured, straightforward unambiguous questionnaire to obtain the information needed. It was intended that the questionnaire would be simple and easy to understand, well ordered and not too time consuming to complete. The patterns of the questionnaire take the following forms:

- The fixed alternative format.
- The close-ended format.
- The multiple choice format.
- The open-ended, otherwise known as self-report format.

Except in a few areas, the questions for the students were of the predominantly fixed alternative format. In order to follow Weiers’ counsel that the questions should not be time consuming, it was a straightforward questionnaire with only twenty-five questions. It was believed that the respondents would be encouraged to complete the questionnaire in a short time. The only open-ended question was the one at the end, which asked the respondents to offer comments, criticisms, views, ideas or opinions on anything pertaining to library services to them as distance learners. The open-ended question was included among a preponderance of fixed-alternative questions to avoid imposing a response to fit a fixed alternative, or forcing a response to a question on which the respondent did not have an opinion.

On the other hand the questions for both the DEU and Library staff were predominantly open-ended. The questions were meant to elicit information on how distance education and the library services for the learners are currently run. The thinking was that the form of the questionnaire would allow adequate appraisal of the various issues to be addressed.

The questionnaire was in three parts, each reflecting the groups involved in the exercise. Part one of the questionnaire was meant for the students, part two for the DEU staff and part three for the Library staff. The questionnaire was not further sub-divided.

In part one, questions 1-5 were intended to elicit personal information about the students in relation to their study. Issues raised included the course of study, the length of time the students had been involved in the study, whether they were employed or not and where they lived or worked (city, town or village). Information was also sought on whether they had any physical disability that made it difficult for them to get to the library.

Questions 6-13 were intended to obtain information on their utilisation of library facilities for their course of study. Had they been using any library facilities? Is it a stated requirement for them to use the library for their course? How often and for what purposes do they use the library? Has any training been received on the use of the library? These, among others, were the questions asked in this section to get the information required from the students.

Questions 14-17 concentrated on their use (if any) of the University of Botswana Library or any of its branches. The information required was the distance to these libraries and the time needed to get to them.

Questions 18-22 were very specific and focussed on the knowledge and application of the Internet in the library that they attend, the extent of the accessibility of the Internet and how much they used it to search the UBL database.

In Question 25, an open-ended one, an attempt was made to obtain the respondents' views, suggestions and proposals that they might have for the library.

Part two of the questionnaire was meant for the DEU staff. The intention of this part was to find out from the DEU staff about the relationship existing between the DEU and the UBL. Information was sought about the running of the programme, the frustrations and

the encouragement that the distance learners may have received regarding support services from the library.

In part three there were questions for the Library staff who were directly involved in the running of library services for distance learners. This section was to enable the library staff to articulate their perceptions and understanding of the library delivery system to distance learners, and to give information on current practice and future plans. It was intended to get a much clearer picture of the problems experienced by the distance learners from the perspectives of the Library staff. This was designed to establish if there was any correlation with the answers provided by the students.

Parts two and three were predominantly open-ended questions. In order not to narrow all the questions down to the researcher's own perspectives, a general question was asked at the end that would allow staff to offer their views. They were then asked whether there were any further aspects regarding the distance education programmes, the use of the library by the distance learners and the relationship between the Library and the DEU that they would want to bring to the researcher's attention.

3.6 ADMINISTRATION OF THE RESEARCH QUESTIONNAIRE

The researcher administered a total of 382 questionnaires to the DPE students at two centres where residential programmes were taking place (See Appendix I for a copy of the questionnaire and the covering letter that accompanied it).

In addition, after permission was sought and obtained, the researcher was given 30 minutes in each of the two centres to distribute the questionnaires. It was observed that the time allocated was more than that needed for the students to complete the questionnaire. The researcher therefore decided to take the opportunity to speak on the importance of the questionnaire to the students. This enabled the researcher to establish rapport with the students. He explained the purpose of the research study, and informed them that the questionnaire was part of it. They were told why their involvement was

needed, and were also informed that the researcher intended to come up with some suggestions relating to their responses.

They were told that they did not need to write their names on the questionnaire. This gave an assurance of confidentiality. The students were requested to be open and honest in their responses to the questions, and were encouraged to offer as much detailed information as possible in the final open-ended part of the questionnaire. In order to remove impediments and improve responses, the researcher stayed with them while they were completing the questionnaire. This enabled the students to ask him some questions. He also explained some of the questions where assistance was needed. Despite the concerted effort made by the researcher to closely monitor the students' responses to the questionnaires, not all of them were properly completed and returned. Nevertheless the students were thanked for their participation in the research exercise. The reason for not being able to collect all the questionnaires was established. In each of the two centres, some of the respondents complained that they did not know that they would need a pen or pencil. Hence they could not complete the questionnaire, but they promised they would do so. An appeal was made to the students to return them on completion to their coordinators, from whom the researcher could easily collect them.

In the case of the CAE students it was decided to mail the questionnaires to them. Stamped self-addressed envelopes were enclosed with the questionnaires so that they could be returned at no cost and without much delay. Since there were only a few of them, they were all telephoned to inform them what was on the way. During the telephone conversation, we discussed with them what had been explained to the DPE students. Their contact addresses and telephone numbers were obtained from the DEU. Apart from mailing the questionnaires, faxed copies were sent to those who had access to a facsimile machine. Some of them completed the faxed questionnaires and faxed them back. The researcher also made a follow up to the scattered CAE students by telephone.

In the case of the four members of staff from the DEU and the UBL, arrangements were made to visit them for a question and answer session. They showed their experience in the dialogue that ensued, and the information volunteered was found to be very useful.

3.7 ANALYSIS OF DATA

As soon as the questionnaires were completed they were examined for errors and inconsistencies. Of the 382 questionnaires administered to the DPE students, 265 were returned completed. With regard to the 18 CAE students who were reached via mail and telephone (some of them also by facsimile), 10 of them responded. This gave a total of 275 questionnaires completed and returned out of 400 distributed to the distance learners. Thus a response rate of 68.75 percent was obtained.

Data was abstracted from the 275 questionnaires and entered into Microsoft Access of a personal computer for computational analysis. Standard statistics were used, including frequency distributions and percentages, to carry out the analysis. For most of the items in the questionnaire a separate table was used for ease of reference.

3.8 CONCLUSION

A structured questionnaire was designed for the purpose of achieving the overall research objectives of this study. In designing the questionnaire we wanted to ensure that it would be easy to complete by the respondents, especially the 18 CAE students who had to be reached by mail. Thus this exploratory study was conducted as envisaged and planned. On the whole, there was a fairly satisfactory response, which suggests that the primary subjects of the study were keen to make their contributions to it.

The objectives and hypotheses of the study have been formulated in Chapter 1. We carried out the review of the literature in Chapter 2, whilst explanation on the research methodology has been provided in Chapter 3. What follows in the next chapter (Chapter 4) is an analysis and discussion of the research findings.