CHAPTER FIVE

VIABILITY OF DISTANCE EDUCATION AND FACTORS THAT IMPACT IT IN UGANDA

5.1 INTRODUCTION

Distance education has been used in various countries and programmes as already shown in chapters two and three. It has also been used in Uganda especially for teacher education. One of the purposes of this study was to establish what the various teacher education stakeholders think about the viability of distance education in meeting the educational needs of the country and what factors impact distance education in the country. This chapter therefore presents the findings of the study with regard to viability of distance education and the factors that impact it in Uganda. Although this study focused on In-Service Distance Education For The Education Of Secondary School Teachers In Uganda, the question of viability of distance education and the factors impacting it were with reference to distance education in general. Some of the teacher education programmes may have been used to illustrate the issues raised but the discussion is in reference to distance education in general.

However, before discussing these, section 5.2 presents the characteristics of the sample.   The other sections are as follows:

- Section 5.3 which focuses on the viability of distance education
- Section 5.4 that examines the demands of practical work in teacher education
- Section 5.5 then discusses the factors that impact distance education
- Section 5.6 focuses on government policy on distance education; and the chapter is then summarised in Section 5.7

Appendix VII gives the research questions, the categories that were used to group and code the qualitative data and the different sources of the data.

5.2 SAMPLE CHARACTERISTICS

The sampling procedures and selected sample are discussed in chapter 4 section 4.6 of this report. The importance of the sampling conducted to the investigation was also highlighted in this section. In the next sub sections, key characteristics of this sample are given.

If a programme is to be designed in a manner that will satisfy the learners needs, it is important to understand the characteristics of the learner. Accordingly, the characteristics of particularly the students and prospective students are very important. The same applies to tutors and managers of the B.Ed (External) programme. To involve tutors and managers in a distance education programme, it is always vital to train them in how to deal with the distance learner and so their characteristics are equally important.

All information on the sample characteristics was obtained from answers to questions in Section A of each of the questionnaires and of the interview schedule.

5.2.1 Age ranges

Distance education has been used largely for adults and this is more true in INSET since all those trained under INSET are always teachers already in service. Students, prospective students, and tutors and managers of the B.Ed (External) programme were asked to indicate their age. According to the findings, the youngest in the sample was 22 years old while the oldest was 65 years old.

The specific age distribution according to categories is discussed and then illustrated in table 5.1

a) Age of students

The youngest in this category was 22 years old while the oldest was 50 years old but nearly 60% of the students were below 37 years old. Retirement age in the teaching service is 55 years which means majority of students joining the programme have at least another 18 years of service ahead before retirement. Since knowledge is not static, it is therefore vital that this age group is given INSET if they are to continue serving the school system in a productive manner since with time, knowledge acquired by teachers during training is likely to become obsolete (Bagwandeen and Louw 1993:10 Iredale 1996:13).

b) Age of prospective students

The youngest amongst the prospective students was 20 years old while the oldest in the group was 47 years old. In this category, a much higher percentage (88%) than the students was below the age of 37 years therefore like those on the programme majority of these teachers still have at least 18 more years of service before retirement and would therefore require continuous professional growth.

c) Age of tutors and managers

Although the youngest in this group was 24 years old and the oldest was 65 years old. However, nearly 48 % of the category were above 40 years old. The retirement age in Makerere University is 65 years and so 48% of these tutors and managers still have at least 25 years of service if they remain in University service till retirement. This has two major implications. Firstly, if these tutors are to be trained to serve distance learners, the training methodologies must incorporate the psychology of the adult learner. Secondly, if there are to be any changes in the provision of INSET, this must be carefully introduced because change for adults is likely to be much more threatening and could be resisted.

Table 5.1 illustrates the age distribution of the students (including the former students), the prospective students, and tutor and managers of the B.Ed (External) programme. The means, median, mode and quartile distributions are highlighted in the table.

Table 5.1: Age distribution of respondents

Category	Min	1st Quartile	Median	3rd Quartile	4th Quartile	Mean	Mode
Students	22	30	35	40	50	35	32
Prospective students	20	22	23	25.5	47	26.04	22
Tutors, Managers & Administrators	24	35	40	48	65	41.85	40

5.2.2 Gender Distribution

The respondents were also asked to indicate their gender. Just as with the age of students and staff in any programme, it was deemed important to establish the different gender of the study participants because when planning student support services, it may be necessary to take into account the gender of the students. For example, if accommodation is being arranged for students during face-to-face, gender may be an issue.

Majority of the tutors and managers of the B.Ed (External) programme are male. This is a reflection of gender distribution at universities where the majority of the academic staff is male. For example in the 1999/2000 academic year, Makerere University had a total of 999 academic staff but only 202 (20%) of these were female and the rest - 798 (80%) male (Epelu-Opio 2000:7). This same scenario is reflected

in the gender distribution of the officials at the Ministry of Education and at the District offices. One of the reasons for this, I believe, is the low number of females enrolling in higher and tertiary education in Uganda and as a result only a few eventually rise up to senior positions in the universities and in the Ministry of Education and Sports. Table 5.2 gives the gender distribution of all the respondents.

Table 5.2: Gender distribution of respondents

Respondents	Female	Male	Did not indicate	TOTALS
Students	56 (31.3%)	123 (68.7%)	6	185
Prospective students	20 (44.4%)	25 (55.6%)	4	49
Tutors & managers	9 (25%)	27 (75%)	0	36
Policy makers	4 (11.4%)	31 (88.6%)	0	35
TOTALS	**89**	**206**	**10**	**305**

5.2.3 Work Places of Respondents

As pointed out earlier in chapter 3 table 3.6, the B.Ed (External) programme has a target group that includes educators working in various institutions. So, in this study, all the participants were asked to indicate their work places. Here work place does not refer to a specific location but refers to the section/institution – see item 4 in all the questionnaires (appendices II – V) and item 3 in the interview schedule (appendix VI).   Particularly for students, this information is vital because the teachers' work has implications on the type of courses that INSET should offer.

a) Work Places of Students

Majority of the students on the programme are either teaching in the primary school or in the secondary school although the majority are teaching in the secondary school. Of those that responded to this question, 31.61% are teaching in primary schools, 55.75% in secondary schools, and a further 3.45% of them in the Primary Teachers' Colleges. (PTCs) while the pre-primary institutions and the education offices have only 1 respondent (0.57%) each. The rest of the students (8.53%) work in a cross section of departments:

- Nursing School
- NGO
- Ceramics
- Business
- Directorate of health Services
- Factory
- Fisheries
- Natural Resource Management
- Research Institute
- Veterinary Department
- Water Works
- Agricultural Research Institute
- Construction Firm
- National Colleges of Commerce (UCC)

This latter category of students are taking the BSc (External) programme which as already discussed in section 4.6.4 was meant largely for teachers but admits any other students wishing to enrol and qualify for this degree.

Table 5.3 gives the frequencies and percentages of those who responded to the question requiring them to indicate their workplaces. From the results received, of those who responded to this question, (9 students did not respond) 26.5% of the prospective students in the sample are working in the primary schools while the bulk 75.5% are student teachers training for a Diploma in Secondary Education.

Table 5.3: Work place distribution of students and prospective students

	Work Place	Students		Prospective student	
		Number	%	Number	%
1.	Pre-primary	1	0.57		
2.	Primary	55	31.61	13	26.5
3.	Secondary	97	55.75		
4.	PTCs	6	3.45		
5.	Education Office	1	0.57		
6.	NTC	1	0.57		
7.	Student Teachers	-	-	36	73.5
8.	Others	15	8.53		
9.	Did not respond	9			
	TOTALS	**185**		**49**	

The work place of the students enrolled for the B.Ed (External) programme should have implications on the curriculum of study of the programme because the major purpose of INSET is normally to address the need of the teacher so as to improve the teachers' performance of his/her duties (Bagwandeen 1999:62). In section 6.6.8 how far B.Ed (External) meets the teachers' needs is discussed and it is clear that the programme does not seem to satisfy the needs of the primary school teachers entirely. So, when revisiting the programme, the teachers' work places must be taken into account and the different courses offered should meet the teachers' needs.

b) Work places of tutors, managers and policy makers
Majority of the tutors and managers of the B.Ed (External) programme are from Makerere University (82.86%) while only 14.29% are from Kyambogo University and only one from Kakoba National Teachers' College. This implies that the programme is relying largely on tutors and managers who are already employed in Makerere University.

On the other hand 22.86% of the policy makers were drawn from Makerere University, 20% from the National Teachers' Colleges (NTCs), 20% from the Ministry of Education and Sports (MoES) and the rest (37.14%) were from the districts.

In many dual mode universities, tutors, writers, and managers of the external programmes are often drawn from existing staff of faculties and departments in the university (Robinson and Latchem 2003b:39). This is critical for full integration of the programmes in the university setting. However, where the programme is seen as an extra responsibility, it may suffer greatly.   For example, Robinson and Latchem (2003b:39) cite the problems of '*…unmanageable workloads for the few staff involved and marginalization of the programmes in strategic planning and management'.* In the case of Makerere University, the appointment letter (except for staff appointed directly into the Department of Distance Education) does not state that it is mandatory for a staff member from one faculty to teach in the External Degree Programme. This responsibility is therefore seen as 'extra' and the staff paid for every task carried out. This could be the reason for lack of commitment pointed out by the students while raising the weaknesses of the programme (see section 6.6.4c).

5.2.4 Positions of the study participants

The questionnaires (in item 5 appendices II - V) and interview schedule (in item 4 appendix VI) also sought to establish the positions occupied by the study participants. The distribution is now discussed.

a) Students' work positions

Today's university student is most likely to be a working adult with both family and work responsibilities and in addition, they now take on student responsibilities. The responsibilities already held will most probably influence the students' access to resources, how much time he/she will have for study and his/her learning needs. Distance education programmes drawn therefore need to take this into account ensuring that services provided and schedules of programmes take into account the learners other commitments. This is the only way in which the programmes will exploit flexibility that distance education provides (Peters 1996: 45).

In this study, of the students who responded to this question, the majority are classroom teachers (45.51%) and in addition, some of the teachers have other responsibilities and some of these highlighted included:

- Careers and Guidance Teachers
- Chairperson of a Headteachers' Association
- Director of Studies

- In charge Book Store
- Assistant Games Master
- Deputy Headteachers
- Class Teacher

Table 5.4 gives the frequencies and percentages of the students and the different work positions held.

Table 5.4: Students' work positions

Position	f	%
Teacher	81	45.51
Head of Department	36	20.22
Headteacher	33	18.54
Assistant Education officer	6	3.37
Technician/Engineer	5	2.81
Fisheries/Animal husbandry/Vector Control Officer	5	2.81
Deputy Headteacher/ Deputy Principal	4	2.25
Director of Seminary/Manager/Project Director	3	1.69
Inspector of Schools	1	0.56
Education officer	1	0.56
Tutor	1	0.56
Nurse Tutor	1	0.56
Lecturer	1	0.56
Did not indicate	7	
TOTALS	185	100

Apart from the students working in educational institutions and departments, a number of them are working in other departments and institutions (as shown in table 5.3) that are not educational institutions and therefore occupy a variety of positions. This category includes:

- Chief Technician
- Technician
- Water Engineer
- Vector Control officer
- Assistant Fisheries Officer

- Assistant Animal Husbandry Officer
- Manager
- Foreman
- Project Director

b) Work positions of prospective students

Prospective students were drawn from the NTCs and therefore the largest proportion (72.92%) were student teachers while 18.75% are classroom teachers and the rest (8.33%) included a headteacher, an education officer and heads of departments.

c) Work positions of tutors and managers

Tutors and managers of the B.Ed (External) programme who responded to this question included an Associate Professor, Assistant Lecturers, Senior Lecturers,

Lecturers and Teaching Assistants. The majority in this category however consisted of lecturers (58.33%). Table 5.5 gives the frequencies and percentages of those tutors and managers who answered this question.

The positions of the tutors and managers have some bearing on the management of the programme. For example, it is only Deans/Directors, Professors and Associate Professors who are members of Senate that is the highest decision making organ of Makerere University. So if nearly all the tutors and managers of the B.Ed (External) programme are not members of Senate, who then is representing the interests of this programme in Senate?

Table 5.5 Positions of tutors and managers of the B.Ed (External) programme

Position	f	%
Lecturer	21	58.33
Senior lecturer	6	16.67
Teaching Assistant/Administrative Assistant	4	11.11
Assistant Lecturer	3	8.33
Associate professor	1	2.78
Editor	1	2.78
Professor	0	0
TOTAL	36	100

Also, according to Moore (1996b:24) the direction and extent of the dialogue that will take place between the learners and the teacher will depend on the *'…educational philosophy of the individual or group responsible for the design of the course, by the personalities of teacher and learner…'* So, if majority of the tutors and managers are lecturers and there are only a few Senior Lecturers and Professors, is this affecting the amount and form of dialogue taking place between the B.Ed (External) learners and the tutors?

d) Work positions for policy makers

The policy makers who participated in this research were drawn from Makerere University, Kyambogo University, district offices and from the MoES headquarters. The highest percentage was of education officers and deans/directors of schools/institutes. Table 5.6 gives the distribution of the policy makers according to work positions they hold.

Table 5.6: Distribution of policy makers according to work positions they hold

Position	f	%
Education officers	8	22.86
Dean/Director (former & current)	8	22.86
Registrar & Deputy Registrars	4	11.43
Deputies (Director & Associate Dean)	4	11.43
Assistant Commissioner	3	8.57
Inspector of Schools	3	8.57
Principal & Deputy Principal	2	5.71
Commissioner	1	2.86
Head of Department	1	2.86
Lecturer	1	2.86
TOTAL	**35**	**100**

5.3 VIABILITY OF DISTANCE EDUCATION

5.3.1 Introduction

 In chapter two and three the reasons for the growth of distance education in education in general and in teacher education was discussed. This study therefore sought to establish how many of the students, prospective students, tutors and managers of B.Ed (External) and policy makers actually do believe in the viability of distance education to meet educational needs in Uganda. The study also sought to establish what is viewed as factors that impact distance education in the country. The next sub sections will now discuss the findings in relation to this.

Of the respondents that answered this question, the majority said that distance education is a viable option for meeting educational needs in Uganda and table 5.7 gives the frequencies and percentages of those who responded to this question.

Table 5.7: Respondents view about viability of Distance Education

Respondents	YES	NO	Did not indicate
Students	166 (93.79%	11 (6.21%)	8
Prospective students	47 (97.92%)	1 (2.08%)	1
Tutors & managers	33 (94.29%)	2 (5.71%)	1
Policy makers	35 (100%)	NIL	NIL

However, it is worth noting that with the exception of the policy makers who all said distance education is viable, a few from all the other categories did argue that distance education is NOT a viable option. It is perhaps even more intriguing that 6.21% of the students already enrolled on the programme do not have faith in distance education! This raises a number of questions. For example, did these

students have faith in distance education before enrolling and have now been disappointed and lost the faith? Is it perhaps that they did not have the faith in the first place but have only joined the programme because it is available and what is the effect of such attitude to their participation in the programme?

5.3.2 Reasons for viability of Distance Education to meet educational needs in Uganda

In item 28c (appendix VI) of the interview schedule, policy makers were asked to give reasons for believing in the viability of distance education. This question was unfortunately not put to the rest of the study participants.

The policy makers put forward a number of reasons for believing that distance education can be used to meet the education needs of the country. The major reason put forward is that distance education has the potential to increase access to education since it often targets a large number at a time. Also that distance education can particularly be used to reach the many that are disadvantaged and have no access to the internal programmes. In so doing, distance education would also address the increasing demand for education especially in the light of the growing population. This view is in agreement with what other authors (De Wolf 1994:1558, Holmberg 1995:13, 2001:17, Rumble 1992:19, Saint 1999:12) have said as the reason for the growth of distance education.

In view of the growing demand for education in Uganda and particularly the growing enrolment numbers in primary school as a result of Universal Primary Education (UPE) and the expected bulge in secondary school and tertiary education, (Ministry of Education and Sports 1999:11) it is encouraging to note that policy makers believe that distance education can be used to meet the increasing demand for education.

Another reason raised is that distance education can be cheaper than the internal programmes and also that it is one way of maximising the use of existing facilities. A number of authors have written believing that distance education is more cost efficient, though not necessarily more cost effective, than internal programmes. Nevertheless, the initial investment is often high. (Bates 2000:128, Berge 2001b:19, Orivel 1994:1567, Perraton 2000:126-127). So, whereas it is important that policy makers interviewed in this study see the potential of distance education to be more cost efficient, it is important for planners to remember that initial investments are likely to be high and should therefore be factored into every plan for a distance

education programme. Otherwise the challenge being faced by Teacher Development and Management System (TDMS) is likely to be a common problem. TDMS started with a heavy dependence on external funding but is now faced by a challenge of finding alternative funding since the external funding is no longer forthcoming (Makau April 2001:21). A few other reasons were given and these are given in table 5.8 that shows the frequencies and percentages of those who gave the reasons.

Table 5.8: Reasons for viability of Distance Education

Reason for Viability	f	%
DE has potential of increasing access to education	23	65.7
DE can be used to meet increasing demand for education	15	42.8
DE is likely to be cheaper and more cost effective	14	40.0
DE offers more flexible programmes	11	31.4
DE has already proved itself successful both in Uganda and elsewhere	6	17.1
DE capable of catering for changing needs of education	2	5.7

5.3.3 Courses that can be offered by Distance Education

All the respondents who said that distance education is a viable option were asked to indicate courses that in their opinion could be offered by distance education. The views given vary although the general tendency is to say that the science-oriented courses including Medicine, Engineering and to the students and prospective students, also Law should not be offered using distance education. Table 5.9 gives percentages of those who said that the courses can be offered by distance education. This table also includes the p values obtained after the Chi-square test – where $p \leq 0.05$. Any p values equal to or less than 0.05 indicate a statistically significant result while any p values of more that 0.05 indicate a result that is not statistically significant.

However a huge proportion of the tutors and managers and of policy makers (83.33%, 85.71% respectively) believe Law can be offered by distance education as compared to a much lower percentage of students (49.10%) and prospective students (42.86%). When this data was subjected to a Chi-test, a p value of 0.0001 was arrived at an indication that the difference is statistically significant. Tutors, managers, and policy makers are all involved at higher academic and managerial concerns and this may be reason for the difference. Also an examination of the reasons given may explain the difference in opinions. Students and prospective students say that Law is a demanding subject requiring a lot more concentration.

On the other hand, when responding to whether science courses can also be offered by distance education a higher percentage of students (46.11%) and tutors and managers (52.78%) said that distance education could indeed be used for science courses compared to only 32.65% prospective students and the 22.86% policy makers.   This difference in opinion is also statistically significant with a Chi-square p value of 0.0194.

The higher percentage recorded from tutors and managers and from the students is probably because the sample included students who are already enrolled on the B.Sc (External) programme and some of the tutors and managers who are involved in both the B.Ed (External) programme and B.Sc (External) programme.   These therefore have direct experience of a science programme being offered by distance and would therefore be more open to supporting its continued provision.

With regard to medicine and engineering, there was general agreement that these courses should not be offered by distance education although according to the chi-square test results, there is a difference of opinions. The difference is statistically significant with regard to medicine but statistically insignificant with regard to engineering (p = 0.2184 for engineering and 0.0378 for medicine). However, the percentages of those supporting these courses are generally low for all the categories of the sample. For example, only 13.77% of the students, 26.53% of the prospective students, 16.67% of the tutors and managers and only 17.14% of the policy makers say engineering could be offered using distance education. On the other hand, medicine had 8.89% of the students, 24.49% of the prospective students, 16.67% of the tutors and managers and only 14.29% of the policy makers.

Table 5.9: Courses that can be offered by Distance Education

Course	Students	Prospective students	Tutors & managers	Policy makers	Chi-Square	Comment (with p≤ 0.05)
	%	%	%	%	p values	Statistical significance
Education	96	91.84	97.22	97.14	0.5446	Not significant
Law	49.1	42.86	83.33	85.71	0.0001	Significant
Social science	75.45	57.14	94.44	100	0.0001	Significant
Arts courses	77.51	83.67	94.44	100	0.0025	Significant
Sciences	46.11	32.65	52.78	22.86	0.0194	Significant
Engineering	13.77	26.53	16.67	17.14	0.2184	Not significant
Medicine	8.98	24.49	16.67	14.29	0.0378	Significant

The statistics shown here can be graphically represented as given in figure in 5.1.

Figure 5.1: Courses that can be offered by Distance Education
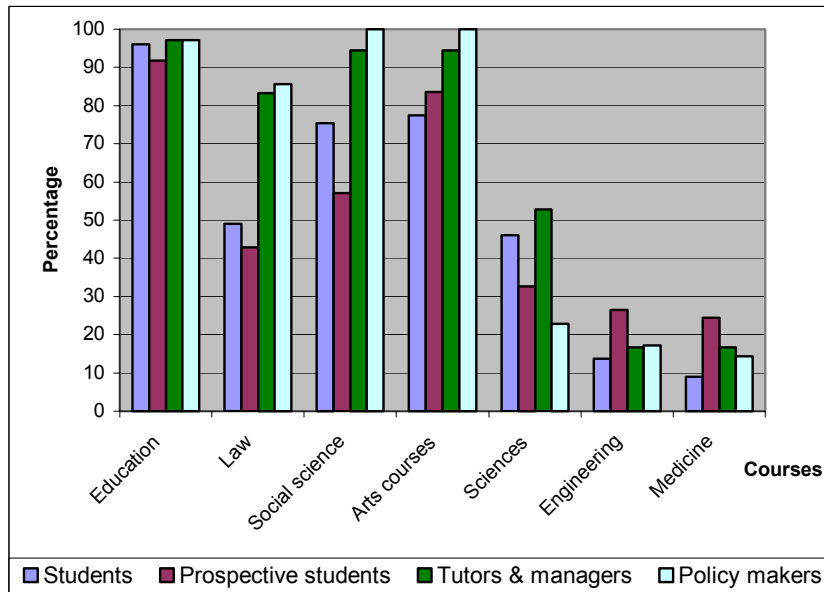
Apart from the courses that were listed in the instruments, the respondents also included a number of other courses that could be provided by distance education. However nearly all these were recommended by only one respondent each. The courses identified include:
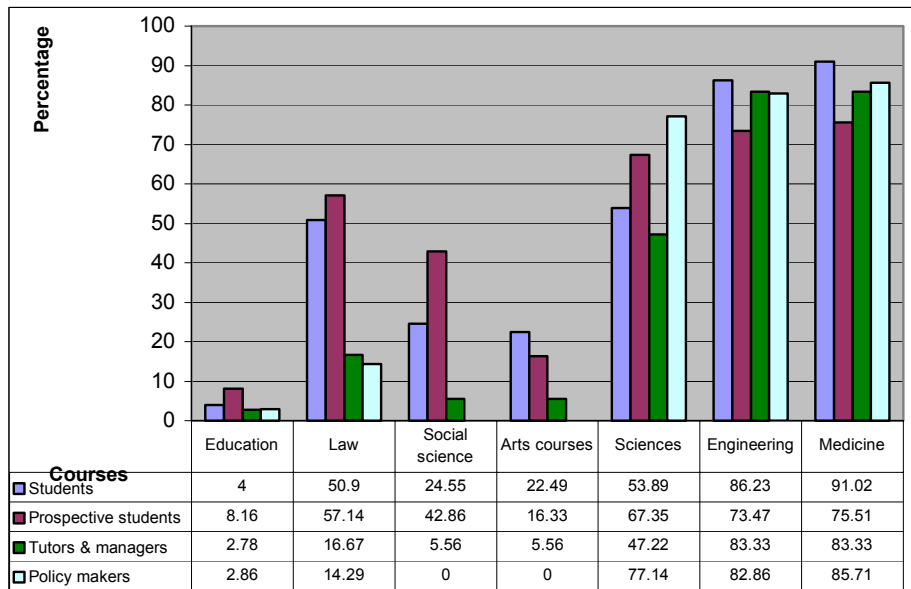
- Administration
- Adult education
- Agriculture
- All fields
- Business
- Commerce
- Community development
- Computer literacy
- Environmental studies
- Extension administration
- Fashion & Modelling

- Fish technology & preservation
- Gender & children's rights
- Health educators' & Tutors' Course
- Journalism
- Mass communication
- Masters & PhD programmes
- Music Dance and Drama
- Public Administration
- Rural development
- Short courses in management
- Surveying

It is interesting to note that although as stated earlier, the general view is that science courses should not be offered using distance education, a number of other courses given include many science courses. This is a reflection that some of the respondents in this study believe in the efficacy of distance education in the provision of science courses. Table 5.9 and figure 5.1 demonstrate this faith because a small proportion of respondents accept that sciences, engineering and medicine can be provided using distance education for as one education officer said, 'any course can be provided by distance education as long as there is demand for it and as long as the courses are well planned'.

5.3.4 Courses that should NOT be offered by Distance Education

All the participants in this study were asked to indicate which course should and which ones should not be offered by distance education and the general consensus was that science courses, engineering and medicine should not be offered. However there was also a high percentage of students and prospective students that said that Law should also not be offered by distance. Figure 5.2 gives courses and the percentages of those who said these courses **should not** be offered using distance education.

Figure 5.2: Courses that should NOT be offered by Distance Education

Courses	Education	Law	Social science	Arts courses	Sciences	Engineering	Medicine
Students	4	50.9	24.55	22.49	53.89	86.23	91.02
Prospective students	8.16	57.14	42.86	16.33	67.35	73.47	75.51
Tutors & managers	2.78	16.67	5.56	5.56	47.22	83.33	83.33
Policy makers	2.86	14.29	0	0	77.14	82.86	85.71

All the respondents were also asked to give reasons as to why they are of the opinion that distance education cannot be used to offer certain courses. A total of 43 students, 14 prospective students, 12 tutors and managers and 20 policy makers responded to this questions and they gave a number of reasons for these views.

Each of the reasons for not offering certain courses by distance education will now be discussed in the next sub-sections.

a) Lack of equipment and other resources

As already mentioned in section 5.3.3 most of the respondents had reservations about the feasibility of using distance education to offer the science-based courses. These types of courses often require specialised equipment, chemicals and other equipment and resources and so of all the responses received, (14.51% by students,

3.51% by prospective students, 16.67% by tutors and managers, and 25.71% by policy makers) were for this very reason. One tutor for example said, 'a lot would need to be done before any of these courses are launched in the department – labs, equipment, tutors, study materials etc.'

b) Need for close interaction and supervision

One of the major challenges in distance education is overcoming isolation since for most of the time, a distance learner studies on his/her own (Amundsen 1996:61-79, Keegan 1996:119, Moore 1996:22, Peters 1994:227, 1996:45, Verduin and Clark 1991:8). This the respondents said, makes it difficult to provide some of these courses. Medicine and engineering, for instance, according to them require:

- Frequent face to face sessions
- On-the-spot supervision of students
- A lot of students/tutor interaction
- Help in understanding specialised language as in the case of Law.

All this would help bridge what Moore (1996b:22) calls transactional distance between the learners and the their tutors and would help reintegrate the teaching/learning acts (Keegan 1996:130) thus enriching learning and making it more meaningful and relevant.

One student, for example, emphasised the need for this interaction by saying, 'science courses including engineering courses and medicine courses that demand a number of practice exercises that should be handled or conducted (practical lessons) in the presence of the teacher to avoid regrets for example burning a lab'. So of all responses received, those that focused on the need for close interaction and supervision were, 21.76% of the students' responses, 19.30% of the prospective students', 33.33% of the tutors and managers', and 37.14% of the policy makers'. Although there seems to be little difference between the four categories, the highest percentage of responses was from the policy makers and with students having the lowest percentage. This might be because the policy makers, tutors and managers have a deeper understanding of what goes into training a doctor or engineer and so have higher reservations.

c) Practical work and hands-on experience

Practical work and hands-on experience is inevitable in medicine, engineering and other science based courses and it is for this reason that some of the respondents

had reservations about the viability of distance education for the provision of these courses. According to them, this hands-on experience can be acquired in laboratories, workshops and in the case of medicine hospitals.   This, they said, may be difficult to provide for in distance education. One tutor expressed a fear that 'engineers produced by distance may be half baked for lack of on-the job experience'. This need for practical work and hands-on experience drew the highest proportion of responses – 35.23% of the students' responses, 35.09% of the prospective students', 55.56% of the tutors and managers', and 77.14% of the policy makers'. Practical work is very closely related to close interaction and supervision so, as was the case with the latter, again here the tutors and policy makers registered higher responses. Section 5.4 focuses on practical demands in teacher education.

Distance education has been accused of being more efficient in the distribution of information and delivery of facts, but that it does not effectively promote deeper learning and the acquisition of critical thinking skills (Bates 1994:1577, Henri and Kaye 1993:27-28, Holmberg 1993:331, Paul 1990:85, Perraton 2000:12). These seem to be the criticisms being raised here as well.

d) Need for instructional materials

Medicine, Engineering and Law require a lot of specialised literature that is most times very costly. According to a small proportion of responses received, (3.24% of the students' responses, 2.78 % of the tutors and managers', and 5.71% of the policy makers'), this is a challenge if distance education is to be used to run these courses. In Makerere University, students have to purchase a lot of the required textbooks, so if Medicine/Engineering/Law were to be offered by distance education, students would probably not afford the expensive books. One tutor for example said, these courses 'require a lot of instructional materials which may be difficult for students to access as individuals'.

e) Cost of the programmes

Distance education is believed to be cheaper in the long run than the internal programmes, however in the case of science based courses, the costs could be higher because of the cost of specialised equipment and other teaching/learning materials like practical kits, chemicals and cost of equipment for laboratories and workshops (Berge 2001a:9, Perraton 2000:118, Rumble 2001b:3). This is the fear expressed by some of the respondents (5.18% of the responses by students, 2.78 %

by tutors and managers, and 5.71% by policy makers) so they do not recommend the running of courses like Medicine, and Engineering. One tutor for instance said, 'needs practical kits and specialised equipment which are expensive'.

f) Demand a lot of concentration

One other reason given for not offering courses like Law and Medicine by distance education is that these two courses demand a lot of concentration. From the responses received (14.51% of those by students, 21.05% of prospective students', 2.78 % of tutors and managers', and 5.71% of the policy makers') these courses should not be offered for this reason.

This thought is actually troubling because, although Verduin and Clark (1991:125) say that different subjects require different competencies, the implication here seems to be that courses currently being offered by distance education do not require or demand a lot of concentration! This argument incriminates the Social Sciences as being inferior to Medicine, Engineering and Law. One student for example said, 'they are the type that require one to wholly give in their time and not just having short sessions like it's the case in current DE programmes'. It is not very clear what this student means by 'short sessions' but it could refer to the short face to face sessions often organised in most distance education programmes in Uganda. If this interpretation is correct then the concept of distance education is certainly lop-sided. Face-to-face sessions are not the sum total of distance education but should rather be taken as one component of the teaching/learning package.   True most distance learners are working adults with other responsibilities but this does not imply that what they study does not demand concentration. Concentration is not a factor of time. It is not the amount of time spent studying that implies concentration but how the study time is spent. A student can, for example, spend many hours 'studying' but with minimal concentration and therefore limited achievement.

g) Sensitivity of subject

Related to the need for concentration on a subject is another reason that was raised (3.11% of students' responses, 7.02% of prospective students', 2.78 % of tutors and managers', and 5.71% of policy makers' responses) and that is that some of the subjects are highly sensitive and should not be offered by distance. One tutor for instance said, 'medicine is an area which has life and death implications and cannot be taught remotely'.

In distance education, the teacher and learner are separated (Amundsen 1996:61-79, Keegan 1996:119, Moore 1996:22, Peters 1994:227, 1996:45, Verduin and Clark 1991:8) but this should not imply that teaching/learning is 'remote'. Isolation can be overcome through use of different strategies to promote interaction between a learner and the tutor and amongst the learners.   This is what Keegan (1996:130) calls the reintegration of the teaching/learning acts while Moore (1996b:24), emphasises the place of dialogue between the learner and the teacher.

All learning should not be conducted 'remotely'. There must be interaction or dialogue although this need not take place face to face. For example, many internal programmes today can also be said to be guilty of teaching 'remotely'. Conducting a lecture to 1,000 students in a lecture theatre without any interaction whatsoever surely makes the teaching here remote!

Nevertheless the concern that subjects require different competencies is in agreement with what Moore (1996:26) and Verduin and Clark (1991:125) raise and so the demands of each subject should be taken into account while planning activities and the need to maintain interaction and promote dialogue should not be underrated. It should be remembered that the content of the course, its structure and the expected learner outcomes dictate the choice of methods of teaching/learning.

h) Lack of understanding of the concept of Distance Education

Related to what is discussed in the previous sub section, some of the respondents (1.04% of the responses by students, 3.51% of prospective students', 2.78 % of tutors and managers', and 5.71% of policy makers') also said that distance education is not fully understood by both the policy makers and the implementers so this makes it difficult to offer the science-based courses. Although only a few respondents expressed this view, it is certainly a very interesting observation because as mentioned in chapter two section 2.4.3c, distance education always needs heavy initial investment for production of study materials and setting up student support mechanisms.   However, this is not always appreciated and distance education is fronted as a cheaper alternative and as Bates (2000:122) says, some of the costs are *'…ignored, underestimated, or underbudgeted'.* This I believe is due to failure to understand what is fully involved in the establishment and provision of distance education programmes.

Although this was not mentioned by any of the respondents, however I believe this lack of understanding of the concept of distance education may also be responsible for what students view as their role in the teaching/learning contract. As will be discussed later in section 6.6.6a some of the students seem to believe that the face-to-face sessions are meant to cover entire course outlines and they do not therefore expect to be given a lot of work to cover on their own.

i) Lack of support and academic staff

To run any educational programme, there is always need for both academic and non-academic staff. However, from the responses received, 1.08% by students, 4.08% by prospective students, 2.78% by tutors and managers, and 14.29% by policy makers, some respondents did express a fear that it will perhaps be difficult to offer some courses by distance education because of inadequate staff needed to provide support to students. Courses like Medicine and Engineering already have a challenge finding adequate staff for internal programmes therefore it is likely to be more difficult to find staff to provide support to distance learners.

In addition to all the reasons discussed in sub sections 5.3.4a to h, a few other reasons were raised and these are:

- Distance education is 'not suitable for undergraduate programmes'.
- 'Studying by distance education has too many diversions'
- 'Quality is difficult to achieve'.

Figure 5.3 gives the distribution of the reasons given by each category of the respondents.

Figure 5.3: Reasons for NOT offering certain courses by Distance Education
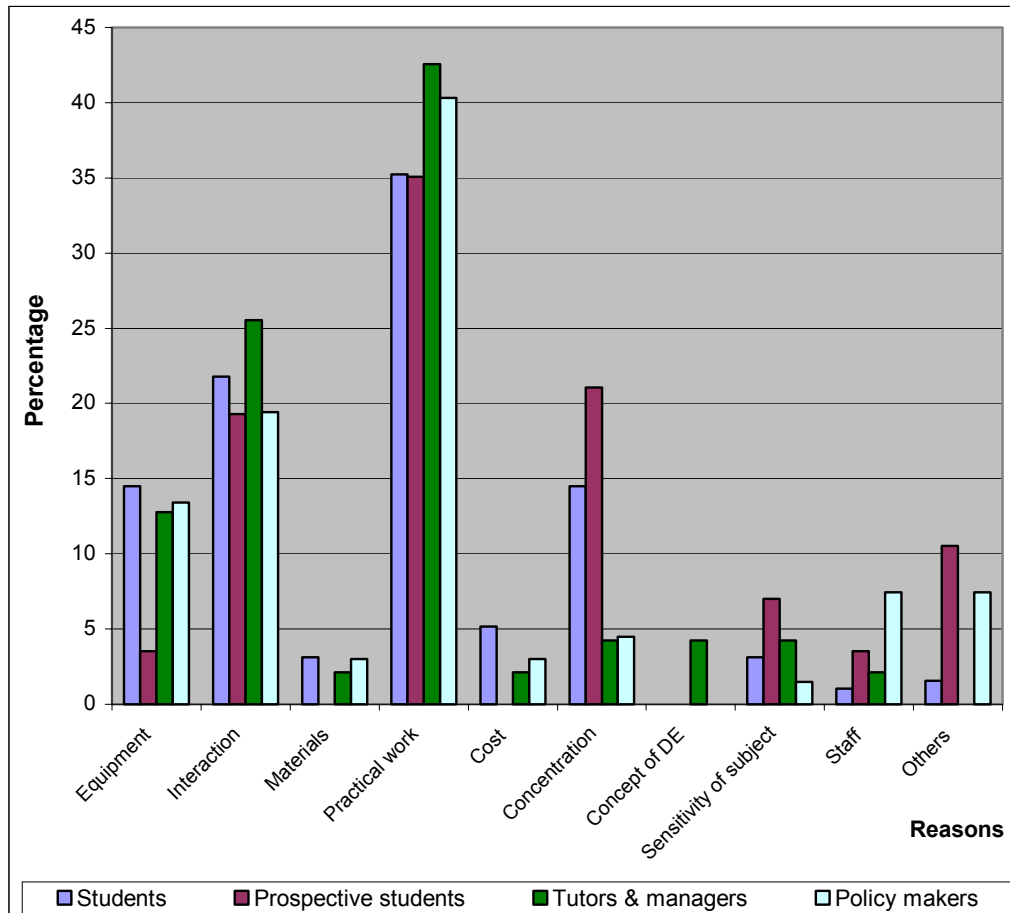
5.3.5 Conclusion

From figure 5.3 it has been shown that according to the respondents, the major reason for being hesitant about offering engineering, medicine and science courses is mainly because of the need for practical work and the need for 'hands-on' experience which to them is difficult to achieve in a distance education setting (35.23% responses by students, 35.09% by prospective students, 55.6% by tutors and managers, and 77.1% by policy makers). The other major and related reason given is the need for close interaction with the lecturers/tutors and the need for close supervision of students.

However, even while a number of reasons have been put forward for not offering certain courses, and as one education officer said, 'any course can be provided by distance education as long as there is demand for it and as long as the courses are well planned'. History of distance education in Uganda has no legacy of science-based distance education programme although Makerere University launched a

B.Sc. (External) programme in 2002; a sign that it is possible for science-based programmes also to be provided by distance education as long as sufficient plans and resources are put in place.

It is therefore evident that to ensure success in distance education programmes, it is vital to:

- Provide equipment and other resources required particularly for science courses.
- Ensure that there is close interaction and supervision of learners. This need not be done face to face but technology can be used to mediate between the teachers and their learners.
- Provide all the required instructional materials. These materials need not be printed but could be provided using any Information Communication Technologies (ICTs). However regardless of which ICT is chosen, the instructional material should be provided. This is much more vital since in distance education learners will for the most time have to study on their own.
- Cater for practical work and 'hands-on' experience for all courses that require practical work.
- Cater for funding of the programmes because inadequately funded programmes could imply unsustainability and poor service delivery.
- Programming of activities allows for sufficient time for learners to focus on what is being learnt for maximum involvement and concentration
- Sensitise all those involved in the programme on what constitutes distance education and on what the different roles are. This would go a long way to promote understanding of distance education.
- The specific nature and demands of each subject needs to be taken into account while planning activities.
- Ensure that there is adequate staff to develop study materials, manage and administer programmes and to provide student support.

5.4 PRACTICAL DEMANDS IN TEACHER EDUCATION

5.4.1 Introduction

Uganda trains both science and arts teachers and some of these subjects demand that practical work be carried out. Also teaching practice is as Ben-Peretz (1994:5993) says, considered as the most important component of the entire teacher

education curriculum and therefore has to be provided for in all teacher education programmes. However, in distance education, this is often challenging. Considering therefore the centrality of teaching practice in teacher education and the fact that it is not being provided for in the B.Ed (External) programme, tutors and managers of B.Ed (External) and policy makers were asked to indicate how practical demands in teacher education could be catered for and a number of strategies were proposed. Especially since this omission of teaching practice in B.Ed (External) is in the words of one of the policy makers '…an omission that has now boomeranged as a weakness…' Another official said, 'teaching practice is vital – training teachers without conducting teaching practice is like giving someone a car without teaching him/her driving' even when she/he cannot drive.

Tutors and managers and the policy makers were asked to give proposals of how they think general practical demands and teaching practice demands in teacher education can be catered for and the results to these questions will now be discussed. This question appeared in items 16 and 17 of the tutors and managers' questionnaire and of the interview schedule (appendix II and VI).

5.4.2 Providing for practical work in Teacher Education

When responding to the question on how practical work can be catered for in distance education teacher education programmes, five strategies were proposed:

- Use of face-to-face sessions
- Collaboration with other institutions for the use of facilities and actual practical work and its supervision
- Drawing local expertise from nearest the students to provide supervision and support to students
- Use of practical kits so that learners can carry out experiments at home.
- Integration of ICT to demonstrate, and provide guidelines

A total of 18 tutors and managers and 17 policy makers responded to this question and table 5.11 gives the frequencies and percentages of their responses.

Some respondents also said various other ways could be used but did not unfortunately specify what these 'other ways' are.

Table 5.10: Strategies for providing for practical work in Teacher Education
*   programmes*

How to Provide	RESPONSES			
	Tutors & managers'		Policy makers'	
	f	%	f	%
Use of face-to-face sessions and supervision	18	40.0	17	24.64
Collaboration with other institutions	5	11.11	16	23.19
Involving local expertise	2	4.44	9	13.04
Use of practical kits, equipment & materials	9	20.0	7	10.14
Integration of ICTs	4	8.89	7	10.14
Various other ways	7	15.56	13	18.84

From table 5.10, it is evident that majority of both the tutors and managers (40% of their responses) and the policy makers (24.64% of their responses) believe that to provide for practical needs of some of the subjects offered by distance education face-to-face sessions can be utilised. These face-to-face sessions can be conducted either centrally at Makerere University or at the study centres. Alternatively, these sessions can be organised at any other institution that has the required facilities. So the other major strategy recommended by the policy makers is through collaboration with other institutions (23.19% of their responses) whilst the tutors and managers recommended the use of practical kits, equipment and other materials (20% of their responses). Through collaboration facilities can be used for practical sessions or academic staff can be involved in the supervision and support of the distance learners. Alternatively, students can be given practical kits, equipment and other materials and the experiments or practical work carried out at home.

5.4.3 Catering for school practice in Teacher Education

Teaching practice or school practice also called the practicum is clearly important in teacher education because it serves many purposes (Ben-Peretz 1994:5993, Dove 1986:251). However, there is no one strategy that has been used to provide for it. Sometimes it has been offered as a series of block periods or a few days each week while trainees continue attending college/university (Dove 1986:251). At other times, as in the School-based approach, teacher trainees are expected to spend more time in the schools and their education integrated into the school activities (Furlong *et al.* 2000:2). The length of this school practice has also often varied from programme to programme and from institution to institution. Nevertheless, since distance education students on teacher education programmes spend most of their time in schools, the school-based approach to teacher education would be an appropriate model.

Tutors and managers of the B.Ed (External) programme and policy makers were asked to suggest ways in which school practice would be catered for in teacher education programmes run through distance education (item 17 of tutors and managers' questionnaire and item 17 of the interview schedule – appendix II and VI). A total of 32 tutors and managers and 33 policy makers responded to this question and table 5.11 gives the frequencies and percentages of their responses and each of the strategies recommended will be discussed in the subsequent sub sections. There were however some who said that school practice is not necessary because as one official said, 'for upgrading teachers, this may not be necessary'. Another however suggested that for teachers crossing from one school level to another (e.g. from primary to secondary), then teaching practice is necessary.

Table 5.11: Strategies for providing for teaching practice in Teacher Education programmes

How to Provide	RESPONSES			
	Tutors & managers'		Policy makers'	
	f	%	f	%
Supervision of student teachers	10	20.41	28	29.79
Posting of student teachers	2	4.08	25	21.28
Collaboration with other institutions & staff	15	30.61	19	20.21
Management of school practice	6	12.24	8	8.51
Structure and format of school practice	7	14.29	8	8.51
Other Strategies	9	18.37	11	11.70

a) Supervision of teachers in Distance Education INSET programmes

One of the major strategies recommended by the tutors and managers (20.41% of the responses) and by the policy makers (29.79%of the responses) was the supervision of teachers during the teaching practice. To effectively do this, different options were recommended and these include:

- Involving local expertise, for example, senior teachers, headteachers, and/or education officers in the supervision of the teachers in their schools. According to one Education officer, 'Develop an "associate assessor" model and use experts outside the university to assess the teachers'. This strategy is similar to the one used in the National Certificate in Education programme in Nigeria. In this programme, educators from the local higher education institutions supervised the school practice (Perraton, Robinson, and Creed 2001:19).

- Utilising peer group teaching during the training

- Involving external examiners/assessors of the teachers. In other words, assessment should not be by the University staff and collaborating staff alone.

External examiners should be carefully selected and involved. Makerere
University is already involving external examiners in school practice of the
internal students.

- For the other experts to be involved, the University needs to train and facilitate
  them. This is especially critical since knowledge of the subject and ability to
  teach internal students does not necessarily imply ability to handle distance
  education students.

b) Posting of teachers

Carrying out teaching practice presupposes that teachers are in or attached to
schools for the exercise and to achieve this, the tutors and managers of the B.Ed
(External) programme (4.08% of their responses) and policy makers (21.28% of their
responses) recommended basically two options.

Option one is that, since many INSET students are teachers working in specific
schools they could carry out their teaching practice in their schools to ensure they are
not destabilised. Support should then be provided to them while they are in their
schools. One policy maker for example said, 'teachers should remain in their schools
and be supervised there so as to keep costs low and to avoid creating "vacuums" in
schools'.

The second option is to post teachers to other schools and local expertise identified
to provide support and to supervise the teachers. According one officer, teachers
should be posted to other schools so 'to avoid bias and ensure independent reports'.

In addition, it was also recommended that 'posting of the teachers should take into
account the students' and schools' needs'. This presupposes that the teacher
training institutions will have already established what the school needs and student
needs are. The training must strive to reconcile these two and only then can the
training be relevant to the schools.

c) Structure and format of teaching practice

To be able to provide for the teaching practice demands, according to the tutors and
managers of the B.Ed (External) programme (14.29% of their responses) and policy
makers (8.51% of their responses) it is important to have a structure of teaching
practice that can be implemented in a distance education programme. A number of
options were suggested:

- Run teaching practice in 'block sessions' as done in the internal programmes. Another respondent however recommended that this should be '…done in the last two years of training'.
- Conduct teaching practice either 'at the end of the year or at the end of the final year'.
- Use 'project approach – focusing on one element of teaching practice at a time'. This means that '…specific needs/areas of concern that TP will address' should be identified.
- Use microteaching at both the centre (Makerere University) and at the regions.
- Schedule teaching practice as '…part of assessment'.

What seems paramount from all these recommendations is the need for a structure and format of teaching practice that would be convenient to the students allowing them to study as they work. To manage this effectively it was proposed that:

- Deliberate plans should be made for its provision. In so doing institutions would avoid what Dove (1986:244) calls poorly conceived and poorly organised teaching practice sessions.
- It should not be carried out during the period when the National Teachers' Colleges (NTCs) and other Universities also conduct their own teaching practice. The B.Ed (External) programme draws its tutors from the staff of Makerere University and from other universities and in a few cases from the National Teachers' Colleges. To ensure maximum participation of these tutors, the B.Ed (External) teaching practice must therefore be carried out at a time when these tutors will be available to provide support to the B.Ed (External) students.
- Decentralise management of the programme. If a more school based approach to training is adopted and the students are to spend more time in schools, then a highly centralised management of the programme will certainly not be appropriate. As it is, students of the B.Ed (External) programme are already spending most of their time in schools. The challenge would therefore be structuring training while taking this fact into consideration.

As already mentioned in prior discussions, (section 5.4.2) collaboration is critical if INSET distance education programmes are to successfully conduct teaching practice.

d) Collaboration with other experts

The Department of Distance Education, Makerere University runs the B.Ed (External) programme in collaboration with the School of Education. Tutors and managers (30.61% of their responses) and policy makers (20.21% of their responses) recommended that this should be extended to include collaboration and partnerships with various other experts and institutions. This collaboration and partnerships could be in the form of:

- Collaboration with schools, and involving senior teachers in these schools as 'cooperative teachers'.

- Involving any other relevant experts in the students' localities to supervise support and/or act as mentors.

- Involving headteachers '…but the headteachers should not supervise their own teachers'.

- Maximum utilisation of existing education infrastructure to plan and effect teaching practice.

The education system in Uganda has an infrastructure that includes Ministry of Education, District Education offices, universities, colleges and schools. If collaboration is to effectively work, then this existing infrastructure should be fully utilised. For example, in TDMS (see section 3.6.3) the programmes were run through a Central and District Management Framework that involved Ministry of Education and Sports officials at the Headquarters; Principals, Deputy Principals and Tutors of Primary Teachers Colleges; Institute of Teacher Education Kyambogo; District Education Officers; and external examiners. The B.Ed (External) programme therefore needs to closely consider adopting this strategy.

Also, for this collaboration and partnerships to work effectively, all involved must be trained and necessary facilities/funding provided. This also demands that clear roles and responsibilities of all collaborating parties be specified so as to avoid confusion yet ensure accountability.

5.4.4 Conclusion

Practical demands in teacher education are of great concern and need to be carefully integrated in the programmes. This is of even greater challenge in distance education programmes because if these programmes are to have credibility and if distance education is not to be viewed as 'an inferior alternative', then close attention must be paid to meeting these demands. There is no one strategy for achieving this,

but a combination of strategies could be employed taking into careful consideration the needs of the students and the needs of the schools and providing for them in a convenient, flexible but yet relevant manner.

5.5 FACTORS THAT IMPACT DE IN UGANDA

5.5.1 Introduction

To establish the factors that the sample believes impacts distance education in the country, a choice of seven options were given although the respondents were also free to identify any other factors. The respondents were not required to indicate which factor has the greatest impact on distance education; the emphasis was simply on what was seen to have impact not the degree of that impact. So although a specific factor may have been predominant, this is not a reflection of the degree of impact this factor has on the programmes.

Also, although this study is focusing on distance education INSET for secondary school teachers in Uganda, the question on factors impacting distance education did not specify INSET. It is however assumed that these factors also impact distance education INSET programmes for secondary school teachers in Uganda. Table 5.12 and figure 5.4 give the percentages of students, prospective students and tutors and managers who said these factors impact distance education while figure 5.5 gives the percentages of those who said these factors do not have any impact on distance education. See also table 5.12 for summary of the Chi-square results for each factor.

Table 5.12: Factors that impact Distance Education

Factor	Students	Prospective students	Tutors & managers	Chi-square test	Comment (with p≤0.05)
	%	%	%	p values	Statistical significance
Management & administrative systems in institutions	81.22	82.22	87.88	0.6543	Not significant
Funding of DE programmes	90.66	91.11	84.85	0.5704	Not significant
Expertise in distance education	76.92	69.57	81.82	0.4178	Not significant
Attitudes towards DE	80.77	86.67	90.91	0.2806	Not significant
Government policy on DE	81.87	88.89	69.70	0.0953	Not significant
Institutional policies on DE	76.92	68.89	90.91	0.0702	Not significant
Access to ICTs in the country	70.72	82.22	90.63	0.0270	Significant

Policy makers were also asked the same question although theirs was an open question and they therefore did not have a pre-set list to choose from but were free to raise whatever they felt was an important factor.

The distribution of the responses on these factors is represented in table 5.12 and discussed in the next sub sections.
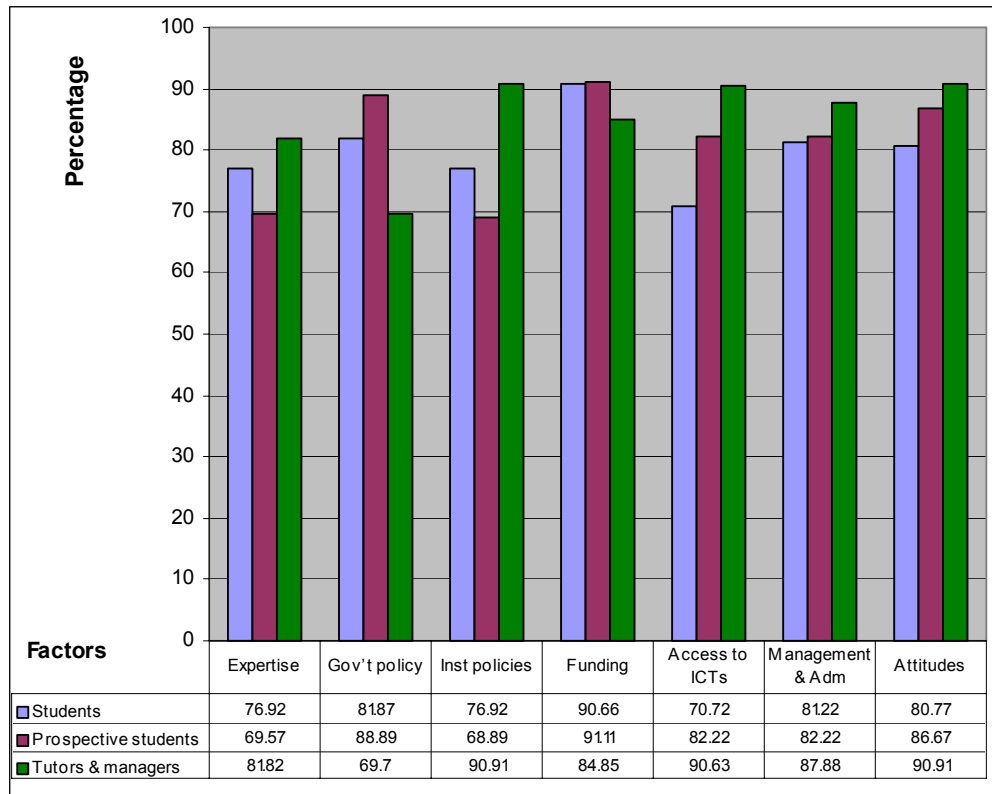
5.5.2 Management and administration of Distance Education
Management and administration is very central in distance education programmes since distance education institutions are meant to be helping organisations (Holmberg 1986:110). So to effectively carry out this helping task, there has to be an administrative framework within which the activities are carried out and there has to be division of labour and rationalisation of all the activities (Peters 1994:109).   It was therefore critical to establish whether the respondents in this study see management and administration as a factor likely to impact distance education in Uganda.

From those who responded to this question, there was general agreement that indeed management and administration do impact distance education. This view was held by 81.22% of the students, 82.22% of the prospective students and 87.88% of the tutors and managers of the B.Ed (External) programme. When this same question was put to the policy makers, 9.47% of the views expressed indicated that management and administration do impact distance education programmes. According to one official, 'management systems and structures in institutions influence running of distance education programmes'. Another was concerned about the 'capacity of institution to run distance education programmes'. It is therefore important that institutions deliberately plan to develop institute and staff capacity to design, develop, manage and run distance education programmes. Each institution should have the capacity to:
- Develop policies and systems that will enhance the provision of distance education programmes
- Manage and administer distance education programmes in cost effective and cost efficient ways
- Design and develop study materials
- Design and manage effective student support services
- Integrate Information Communication Technologies in the programmes
- Monitor and evaluate programmes

Figure 5.4: Factors that impact Distance Education

Factors	Expertise	Gov't policy	Inst policies	Funding	Access to ICTs	Management & Adm	Attitudes
☐ Students	76.92	8187	76.92	90.66	70.72	8122	80.77
☐ Prospective students	69.57	88.89	68.89	9111	82.22	82.22	86.67
☐ Tutors & managers	8182	69.7	90.91	84.85	90.63	87.88	90.91

5.5.3 Funding of Distance Education programmes

There was general consensus that funding is a factor that impacts distance education. From those who responded to this question, 90.66% of the students, 91.11% of the prospective students and 84.85% of the tutors and managers said that funding impacts distance education. This confirms what is reflected in some of the case studies documented by Perraton, Robinson and Creed (2001). In these case studies, funding issues are shown as having had impact on how the programmes were run and structured. For example, in relation to the Brazillian TV-Futura programme, they conclude *'TV-Futura is a high risk and vulnerable initiative since it relies totally on private funding…'* (Perraton, Robinson and Creed 2001:8). Inadequate funding and uncertainties about continuous sources of funding can have a huge impact on the lifespan and structure of distance education programmes.

When policy makers in the study were also asked to suggest what they believe impacts distance education in Uganda, a number of views on funding were expressed, for example:

- 'Capacity of the institutions to provide DE. Inadequate structures and resources leading to poor quality provision.'

- 'Funding of the programmes – poorly funded programmes have weak structures'.
- 'Payment of fees – all DE programmes are not free so those who cannot afford are left out'.

This last point illustrates what Henri and Kaye (1993:27) raise regarding distance education programmes that shut out the very people they are supposed to reach because of restrictions of entry requirements, fees levied, access to study materials and technology used.

One of the attractions of distance education is because it is believed to be cheaper than internal programmes. However, it is also true that distance education requires substantial initial investment for purposes of developing study materials, setting up student support structures and managing its programmes although as Bates (2000:122) says that often times these costs are *'…ignored, underestimated, or underbudgeted'.*

5.5.4 Expertise in Distance Education

Provision and management of distance education requires special knowledge and skills. For example, Verduin and Clark (1991:4-5) said *'distance education can be characterised as a form of adult education'*. If therefore distance education is viewed as a form of adult education and if majority of the learners on distance education programmes are adults, then providers of distance education programmes need to understand the basic principles that govern adult learning. Also, distance education has always relied on technology to facilitate dialogue between the learners and the teachers/institutions and for the provision of study materials (Amundsen 1996:67, Holmberg 1995b: 2, Keegan 1996:131, Moore 1996:25, Mishra 2001:4, Verduin and Clark 1991:124). For providers of distance education programmes to effectively and maximally utilise technology to do all this, and for them to produce study materials that are relevant and interactive they must be trained. Expertise in distance education is therefore vital.

5.5.5 Attitudes towards Distance Education

In chapter two section 2.3.7 the challenges facing distance education were discussed because, in spite of its growth, distance education is still viewed as second-rate option to internal programmes (Paul 1990:59). This attitude is unfortunately, according to (Perraton 2000:82,199) held by learners, parents, and in some countries amongst Ministry of Education officials as well.

In this study, it was therefore important to establish whether this is viewed as an important factor. The results revealed that 80.77% of the students, 86.67% of the prospective students and 90.91% of the tutors and managers all believe that attitudes towards distance education do impact distance education. Policy makers also raised attitudes as a factor and to some of them:

- 'Public looks at those doing distance education programmes as getting second rate degrees. For example belief that B.Ed students cannot teach "A" Level after qualification'.
- 'Many have reservations regarding effectiveness of distance education'

Some of the policy makers also suggested that this poor attitude is a result of 'lack of sensitisation of the public and policy makers about distance education' and therefore 'lack of understanding of distance education'.

If the public in Uganda, as one of the officials said, view distance education degrees as second rate, then this is likely to affect who and how many actually enrol on the programmes. Besides, if prospective employers have no faith in the distance education graduates then the acceptability and employability of these graduates is likely to be compromised and this would in turn affect credibility and sustainability of the programmes.

Attitudes can not be ignored but should rather be addressed and hopefully changed perhaps through sensitisation as suggested but also through ensuring high quality programmes so as to win the 'Doubting Thomases' over.

5.5.6 Government policy on Distance Education

In this study, there was tremendous support for government policy on distance education. 81.87% of the students, and 88.89% of the prospective students agreed that government should come up with a comprehensive policy on distance education. Ironically however, in response to the question of which factors impact distance education (item 10 in the tutors and managers' questionnaire – appendix II) the lowest percentage of tutors and managers (69.70%) believed that this is an important factor. Although according to the Chi-square test with p≤0.05, (p value of 0.0953 was arrived at) this difference in opinion is not statistically significant. It is not evident why fewer tutors and managers than students think that government policy on distance education is a factor that impacts distance education yet, the lack of clear policy on distance education seems to actually impact distance education in the country. One of the policy makers was for example concerned that there is 'lack of a qualifications

authority in Uganda. This means no control over who runs DE programmes and standards to be maintained'.

The government of Uganda does not yet have a comprehensive policy on distance education. True the Government White Paper on Education does recommend the use of distance education for training of teachers and had also recommended that an Open University be opened before 2000 (Republic of Uganda 1992:95), however there is no comprehensive policy laid down. This lack of specificity on distance education is also evident in the Issues Paper on Higher Education that the Ministry of Education and Sports commissioned Prof Kasozi to write. In this paper and in spite of a clear description of the likely pressure on education that is likely to be created as a result of the UPE bulge, distance education is not recommended as a possible alternative! Instead this paper recommends that the Open University be delayed until all the infrastructure to support it is in place (Kasozi [s.a.]: 15)!' This issues paper is supposed to form the basis for policy on higher education and yet it appears not to recognise the viability of distance education. There is a huge gap in terms of policy governing distance education in Uganda. Perhaps this is why up to now Uganda has no Open University and most of the distance education programmes are privately sponsored. It is likely that this is related to the attitude of the policy makers towards distance education as already discussed in section 5.5.5.

It is for instance a contradiction that students who join Kyambogo University for a full time two-year B.Ed programme receive government funding and yet B.Ed (External) students are not given any financial support. The B.Ed students of Kyambogo University 'abandon' their stations for two years whilst the B.Ed (External) students continue to serve the nation by continuing to teach while studying. This I believe is a policy matter that needs to be clarified.

This whole scenario of lack of a comprehensive policy is different from the South African one. South Africa has made a lot of progress in distance education and I believe this is because the country has a comprehensive policy on distance education. For example, in 1996, South Africa developed a quality assurance framework for use in the provision of distance education in the country (Directorate of Distance Education, Media and Technological Services, Department of Education 1996).

5.5.7 Institutional policies on Distance Education

Related to the issue of government policy was the issue of institutional policies. Of those who responded to this question, 76.92% of the students, 68.89% of the prospective students and 90.91% of the tutors and managers were of the view that this factor impacts distance education. The difference in opinion here is also not statistically significant with a p value of 0.0702. However, the prospective students had the lowest percentage and this may be because since the majority are student teachers at National Teachers' Colleges, they may have had less perception of what impact institutional policies can have on programmes. On the other hand, tutors and managers grapple with Makerere's policies in the implementation of their duties and so see institutional policies as likely to impact distance education.

Moore (1996:27) identifies the constraints that are imposed by the institution as factors likely to influence the structure of a programme. For example ,whether the programme will have fixed deadlines for registration and examinations is likely to be influenced by policies of the institution.

One policy maker was concerned that ' the different calendars for the different institutions i.e. universities – semesters, schools – terms '… was creating clashes in the programming of activities. Another was concerned because of lack of '…clear policy on equivalences of various certificates being issued by the different institutions'.

Providers of distance education programme therefore need to ensure that policies put in place are the kind that will promote efficient and effective provision of distance education programmes.

5.5.8 Access to Information Communication Technologies

The growth of distance education has been closely associated with the technology of the time (Garrison, 1996:17) and so distance education and technology can be said to be inseparable (Amundsen 1996:67). Access to technology should therefore be a factor that is likely to impact distance education. The case studies documented by Perraton, Robinson and Creed (2001) illustrate use of different technologies and the as in the case of funding, the choice of technology has implications of how the programme is structured and also has cost implications on programmes.   So, clearly, existing literature indicates that technology has a lot of impact on distance education programmes.

In this study, 70.72% of the students, 82.22% of the prospective students and 90.63% of the tutors and managers were of the view that access to technology does impact distance education. This difference of opinion is statistically significant with a p value of 0.0270. In fact in relation to all the factors listed in the research instruments, access to technology is the only one where the statistical difference was significant. See also table 5.12. The major difference of opinion seems to be between the students and tutors and managers. Tutors and managers need technology to design and develop study materials and they need technology to manage the programme. For example, with the growing use of computers in designing and typesetting course materials, the tutors would therefore see access as likely to impact their activities. On the other hand, since the B.Ed (External) uses written study materials as core mode of teaching/learning, the students may not see the immediate impact of lack of access to technology.
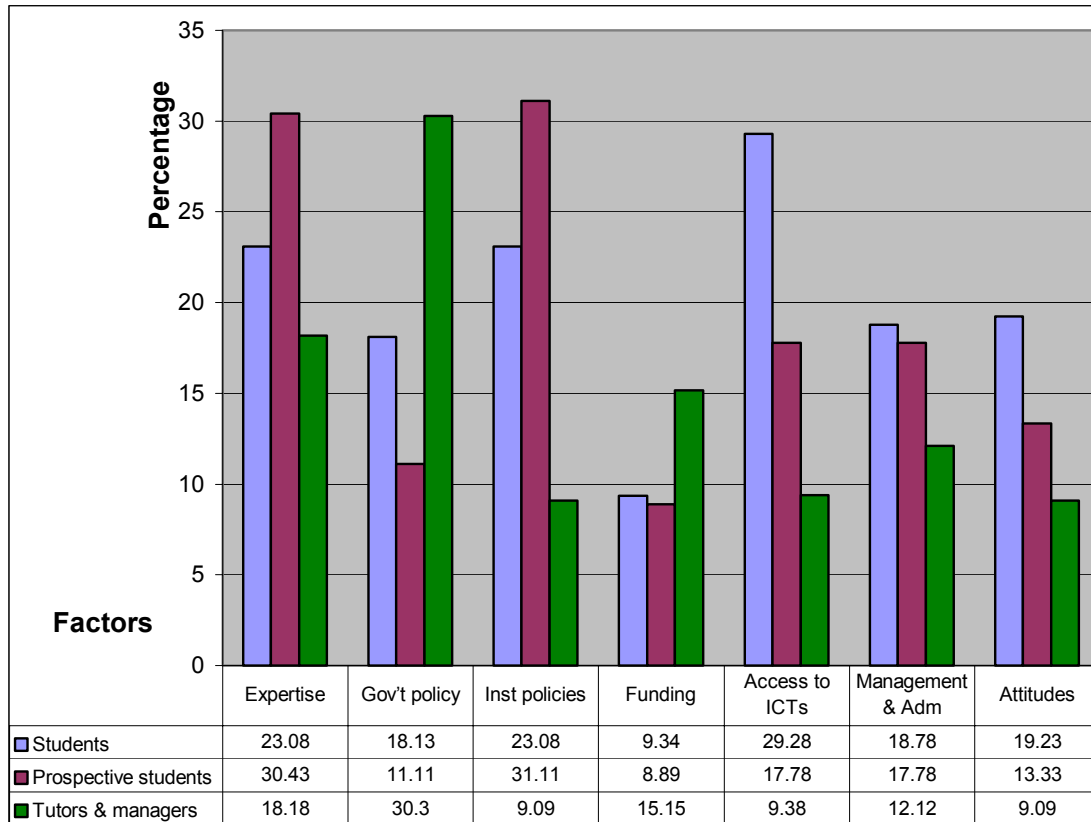
5.5.9 Factors that DO NOT impact Distance Education

The questions that were put to students, prospective students and to the tutors and managers were YES/NO questions. This therefore implies that although as discussed in the preceding sub sections most of the factors listed received support the same factors were said not to impact distance education.

From the results obtained the highest percentage of prospective students felt that institutional policies (31.11%) and expertise in distance education (30.43%) did not impact distance education. On the other hand the highest number of tutors (30.30%) and managers were of the view that government policy did not impact distance education while 29.28% of the students were of the view that access to ICTs had no impact.

Figure 5.5 graphically represents these views.

Figure 5.5: Factors that DO NOT impact Distance Education

	Expertise	Gov't policy	Inst policies	Funding	Access to ICTs	Management & Adm	Attitudes
Students	23.08	18.13	23.08	9.34	29.28	18.78	19.23
Prospective students	30.43	11.11	31.11	8.89	17.78	17.78	13.33
Tutors & managers	18.18	30.3	9.09	15.15	9.38	12.12	9.09

5.5.10 Conclusion

Overall, all the factors listed were believed to have an impact on distance education and additional factors were also identified. Nevertheless some of the respondents were of the view that these factors did not impact distance education. However, the instruments did not seek to establish the degree of impact of each of these factors. The study only sought to establish which factors were considered to impact distance education. A factor with the highest percentages does not therefore imply it has the highest degree of impact. Figure 5.4 graphically illustrates the distribution of the percentages of the students, prospective students and tutors and managers who said that the factors listed impact distance education. Additional factors identified include:

- Accommodation during face to face
- Age of learners
- Attitude of staff
- Individual expectations
- Job security & promotion of student
- Learners' distance from institution
- Other responsibilities of students
- Sectarianism by staff
- Staff running the programmes
- Timing of programmes
- Quality of services offered
- Lack of knowledge about DE
- Education level of learner
- Religious affiliation of student
- Learning environment
- Credibility of institution

- Support of local leaders
- Communication facilities
- Mode of assessment
- Unemployment
- Time spent on face to face
- Economic status of students
- Support services available
- Access to education
- Government policy on education and In-service

- Quality & structure of programme
- Demand for education
- Globalisation
- Competition in the education sector
- Political support for DE
- Reading culture
- Security

However as shown in the discussions 5.5.2 – 5.5.8, there was a difference in terms of what was more popularly viewed as impacting distance education. Whereas funding of distance education had the highest support from students (90.66%) and prospective students (91.11%), the highest number of tutors and mangers indicated institutional policies on distance education, access to ICT and attitudes towards distance education (at least 90% for each). Policy makers seemed to agree with the students view because majority of them too chose funding of distance education (13.68% of the responses). However the highest number of responses given by policy makers on factors impacting distance education was actually on support services available to students (14.74% of the responses). It would therefore appear that policy makers put availability of support services above all the other factors.

It is not clear why there is such a divergence of views regarding what impacts distance education. However, it would appear that since the B.Ed (External) and B.Sc. (External) are both self-financing programmes and students must pay fees and meet all the other costs; this might explain why the majority of the students viewed funding as a factor that impacts distance education. On the other hand, tutors and managers have a clearer understanding of institutional policies and would therefore have a deeper insight of their impact on distance education.   Nevertheless, there is consensus that there are a variety of factors that are impacting distance education in Uganda. The study may have not established the degree of impact of each factor but a number have been identified and each needs to be carefully taken into account to ensure more efficient and effective distance education programmes.

5.6 GOVERNMENT POLICY ON DISTANCE EDUCATION IN UGANDA

5.6.1 Introduction
The Constitution of Uganda states that *'all persons have a right to education'* (Republic of Uganda 1995:29) and also since education is a social service, the

government of Uganda has a very central role to play in its provision. To fulfil this government has set up various institutions, departments and organs to carry out these functions. A number of policies have also been put in place to guide the implementation of government plans and meet the demand for education. However, as already mentioned in section 5.5.6, there is no comprehensive policy on distance education in the country.

Students, prospective students, tutors and managers of B.Ed (External) were therefore asked whether it is their opinion that government needs to come up with a policy on distance education. In response to this, there was general support for government policy on distance education although six students (3.37%) and two prospective students (4.17%) were of the view that there is no need for any government policy on distance education.   According to one official, we need a 'policy that will direct the path of open and distance learning because there is a lot of interest but there is no guidance by the Ministry'.

When asked to identify specific issues that a policy on distance education would need to highlight, a number of issues were proposed and these are now discussed in sections 5.6.2 – 5.6.11. A total of 161 students, 38 prospective students, 30 tutors and managers, and 35 policy makers responded to this question. However, in the discussion of the results the frequencies and percentages of the responses received rather than frequencies and percentages of the respondents is presented.

5.6.2 Accreditation and recognition

In section 2.3.3 it was pointed out that distance education has grown and part of the evidence of this growth is in the number of distance education institutions that have been opened; and according to Holmberg (2001:17 – 18), International Centre for Distance Learning (ICDL 2003a:1) and Robinson (1996:4) there are now more than 1,000 institutions. Many of these institutions are running both credit and non-credit courses. However in Uganda most of the distance education courses that are being offered in the country are credit courses.

The issue of accreditation is therefore an important one and it was the view of the respondents that a policy on distance education should explicitly specify who can award certificates, diplomas and degrees. Just as the government registers schools and institutions whether private or public and this registration status determines which programmes, certificates, diplomas or degrees an institution can offer, the

same practice should apply to distance education. In relation to this, it was also their view that the policy should recognise distance education as a viable option. According to one education official, distance education should be recognised as one of the alternatives, he said 'mainstream distance education. Establish distance education as one of the mainstream alternatives of providing education. Therefore an important alternative not as a second rate one'.   One of the tutors shared this view when he said, 'recognition that distance education can produce graduates of similar nature with that of conventional methods of education'. The issue of quality assurance in teacher education programmes is discussed in chapter 6 section 6.4.8.

Accreditation and recognition covers status of distance education in relation to internal programmes, monitoring agencies that should monitor distance education programmes, and research in distance education so as to ensure credibility. The highest number of responses on accreditation and recognition as one of the issues that the policy should cover was by policy makers (6.25% of their responses). They were followed by the tutors and managers (with 5.88% of their responses, 3.17% of prospective students' responses and, students with 1.06% of their responses).

5.6.3 Entry requirements and courses to be offered

Concern was expressed in relation to entry requirements and courses that should be offered by distance. This may arise from what was discussed earlier in section 5.3.4 where reservations were expressed in relation to offering science-based programmes by distance. So, from those who responded to this question, a total of 14.18% responses received from students, 28.57% from prospective students, 17.71% from policy makers and 18.82% from tutors and managers were that, any policy on distance education that government comes up with should deal with entry requirements and courses to be offered. In particular, the following should be dealt with by the policy:

- Entry requirements of all admitted for distance education programmes. One of the problems some of the teacher education programmes have faced is admitting candidates that have weak passes (Dove 1986:241, Iredale 1996:13, Robinson and Latchem 2003a:4). Determining entry requirements is one way of avoiding this however, if distance education is meant to democratise education by opening up access (De Wolf 1994:1558, Holmberg 1995b:13, Rumble 1992:19), prescribing entry requirements then implies distance education programmes will cut off those that it would be expected to reach.

- Courses to be offered, their duration, certification, and the level of education that distance education can serve. For example, in the words of one student, 'distance education should not be offered at elementary levels e.g. primary, secondary, and Diploma in Education (Secondary)'. Also that the policy should emphasise the need for relevant courses.

- Quality of distance education programmes. The policy should state what is required to ensure quality programmes. Related to this, was the suggestion that the policy should cover rules and regulations governing distance education. See also chapter 6 section 6.4.8 for further discussion of quality assurance in teacher education programmes.

5.6.4 Rules and regulations governing Distance Education

To ensure that distance education institutions have all the required facilities and that the programmes run are of high quality, it was proposed (8.51% of the responses by students, 1.59% of the prospective students' responses, 11.76% of the tutors and managers' and 30.21% by policy makers') that the policy should:

- State the minimum standards that each programme should meet and minimum requirements that must be in place before any institution is permitted to run distance education programmes. One education officer was particularly concerned about the protection of consumers and said, 'Need a policy that will protect consumers from conmen/conwomen'. So, it was also suggested that there must be 'quality assurance for the institutions, programmes and outputs of the institutions (this must be comprehensive)'.

- The roles of the National Council for Higher Education and Education Standards Agency as monitoring agencies. These are national institutions and it was the view particularly of some policy makers that a policy on distance education should highlight the role of these institutions in distance education as well. For as of now, these institutions seem to focus much more on internal programmes.

- Also state rules and regulations governing study leave matters for trainees and their workload.

Rules and regulations governing distance education would govern both the national and international providers of programmes.

5.6.5 Funding and equipment for Distance Education programmes

 One of the factors that was identified as having impact on distance education in Uganda is funding (see section 5.5.3) and on the question of what the policy on distance education should highlight, this was again raised (28.37 % responses by

students, 25.40% by prospective students, 10.42% by policy makers, and 18.82% tutors and managers). Some of the issues specifically raised are:

- Funding and subsidies of distance education. Most of the distance education programmes being run in Uganda are privately sponsored programmes. Students on these programmes pay tuition fees and cater for all their other financial needs. It was therefore suggested that there should be clear policy about this.
- Tax levies on technology and study materials. In the words of one education officer, 'high taxes make these materials expensive.'
- Cost of distance education programmes to students.
- 'Unlimited use of all Ministry of Education and all government institutions' facilities by distance education programmes.'

The bulk of B.Ed (External) funding is from student fees and this covers registration, tuition, and examinations. In addition, students meet all the costs of transport to venues for face to face sessions, accommodation and food during these times, photocopying of some study materials and any other related personal costs. Ironically however, as mentioned in section 5.5.6 students who join Kyambogo University for a similar but internal programme receive government funding covering tuition, accommodation and food. I believe this contradiction in government funding of B.Ed students is one of the reasons for a higher number of students suggesting that there ought to be a policy on funding of distance education programmes.

5.6.6 Human resource for Distance Education programmes

Distance education institutions require human resource to effectively and efficiently run its programmes. For example, according to Mishra (2001:4) an institution planning to launch Internet programmes must be prepared to do so. It must ensure it has the expertise to design programmes and the academic staff must be trained and prepared to undertake all tasks that will be required of them.

A small proportion of participants in this study likewise identified human resource as an area of concern. Of all the responses received from students on what the policy should cover, only 5.32 % were on human resource, while 4.76% of those by prospective students, 4.17% by policy makers, and 5.88% by tutors and managers. In particular their views were that, qualifications and remuneration of distance education staff and their training needs should be included in the policy.

5.6.7 Student support for Distance Education programmes

One of the major characteristics of distance education is that the learner and the teacher are separated among other things by distance and time, (Amundsen 1996:61-79, Keegan 1996:119, Moore 1996:22, Peters 1994:227, 1996:45, Verduin and Clark 1991:8). To bridge this gap between the learner and the teacher/institution, the distance education institutions have to play a supportive role in their running of distance education programmes (Holmberg 1986:110, Keegan 1996:120). The participants in this study felt that student support needs to be highlighted in any policy on distance education. The specific areas of concern that this policy should highlight are:

- Study centres that are '…within easy reach should be identified.' These centres should also be equipped, so the policy should concern itself with this as well.
- The need for decentralisation of distance education programmes. This is perhaps with the assumption that decentralisation implies taking services nearest the students.
- Provision of study materials.

What is raised here can also be related to what has been discussed under section 5.6.4. When talking about rules and regulations, the respondents said that the policy should specify the minimum requirements that institutions intending to offer distance education must have. Student support systems and services can be taken as part of this 'minimum requirements'.

From the responses received on what the policy should include, 19.5 % of those given by students, 17.46% by prospective students, 7.29% by policy makers, and 21.18% by tutors and managers, were on student support.

5.6.8 Access and democratisation of education

Distance education is popular because of its potential to increase access and reach out to those who are disadvantaged thus democratising education (De Wolf 1994:1558, Holmberg 1995:13, Rumble 1992:19). The respondents in this study also see this issue as important and want it highlighted in a distance education policy. So to them, (2.13 % of the responses given by students, 11.11% by prospective students, none from policy makers, and 2.35% by tutors and managers) the numbers to be trained each year should be specified and the question of access in the rural areas needs to be particularly addressed.

This policy should, according to some students, also indicate who should train, when and how many each year.   One student said, 'distance education should not be used for elementary levels e.g. primary, secondary school and diploma level.' I find this contradictory with the view of using distance education to democratise education because prescribing who and how many should train each year will imply eliminating some of those who would probably have wanted to study by distance education. This is not democratising education.

5.6.9 Employment and remuneration of graduates of Distance Education programmes

From the comments given, (12.41 % of the responses given by students, 7.94% by prospective students, 5.21% by policy makers, and 3.53% by tutors and managers) it was the view of the respondents that a policy on distance education should also cover employment and remuneration of graduates of distance education programmes. This seems to particularly concern teachers that enrol on distance education programmes. According to one student, the policy should cover 'employment opportunities after course and remunerating equivalent to the qualification attained' and another student said, 'appointment of graduate teachers, updating salaries to match the new qualifications…' There should therefore be a clear policy regarding the remuneration of graduates; unlike the current situation where teachers are upgrading but are not being registered at their new qualification level. A circular from the Ministry of Education and Sports states in part, *'attainment of higher qualifications will not automatically lead to promotion to Grade V or Graduate teacher…'* (Lubanga 28th May 2002).

According to the respondents, the policy should therefore specifically cover:

- Registration of graduate teachers
- Salary scales of graduate teachers
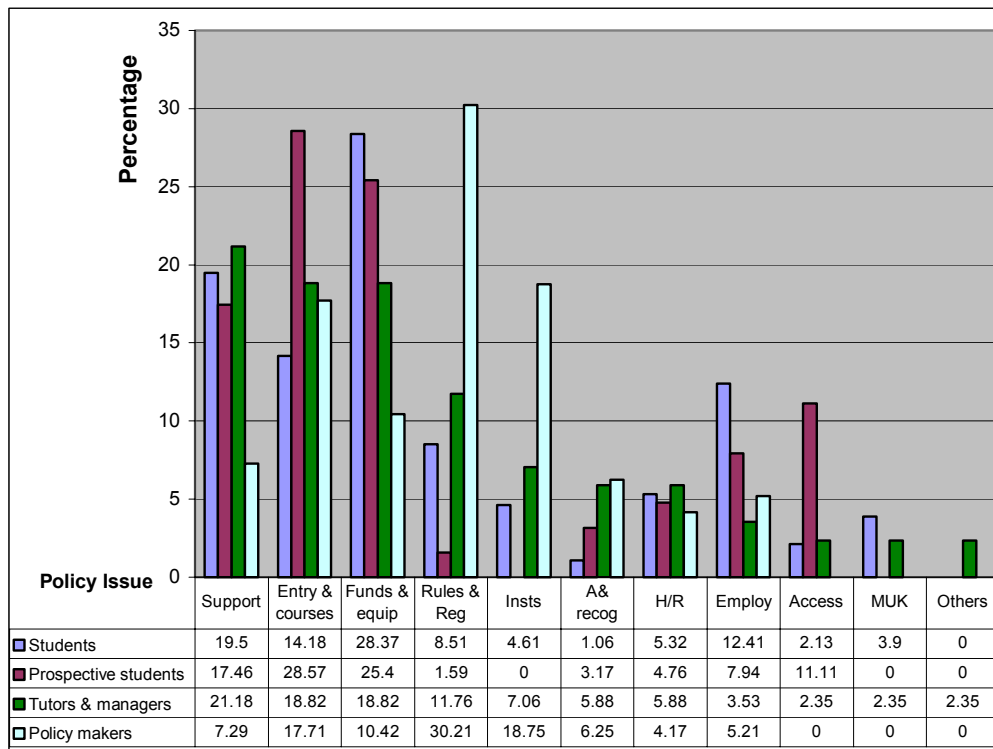- Promotional opportunities for graduate teachers and
- Job security

5.6.10 Institutions that can offer Distance Education programmes and their administration and management

There seems to be concern about the growing number of distance education programmes that are being offered by both national and foreign institutions so, some of the respondents (4.61% of the responses by students, none by prospective students, 18.75% by policy makers, and 7.06% tutors and managers) believe that there ought to be a policy specifying:

- Which institutions can offer distance education programmes. One student said the policy should highlight 'institutions that can provide distance education and what the requirements to do are'.
- How those institutions are managed and administered; and
- How the programmes in those institutions are programmed and scheduled.

Policy makers had the highest number of responses and I believe this is because at their level, the major concerns are at a more national level.

Figure 5.6 illustrates the distribution of the responses that were received with regard to the different issues that a government policy on distance education should cover.

Figure 5.6: Issues to be Included in a government policy on Distance Education

Policy Issue	Support	Entry & courses	Funds & equip	Rules & Reg	Insts	A& recog	H/R	Employ	Access	MUK	Others
Students	19.5	14.18	28.37	8.51	4.61	1.06	5.32	12.41	2.13	3.9	0
Prospective students	17.46	28.57	25.4	1.59	0	3.17	4.76	7.94	11.11	0	0
Tutors & managers	21.18	18.82	18.82	11.76	7.06	5.88	5.88	3.53	2.35	2.35	2.35
Policy makers	7.29	17.71	10.42	30.21	18.75	6.25	4.17	5.21	0	0	0

5.6.11 Policy related to Makerere University

Apart from general distance education policy issues raised, the respondents especially the students (3.90% of responses given by students and only 2.35% of those by tutors and managers) raised a number of other issues that a distance education policy of Makerere University in particular should highlight. The issues are:

- Buildings and facilities for the Department of Distance Education

- Student support services and facilities
- Staff and their remuneration
- Provision of study materials
- Fees payments and the scheduling of these payments

This is perhaps as a result of some of the challenges that both the students and tutors of the Makerere University external programmes face. To them therefore some of these challenges would be better addressed if Makerere University came up with clear policies regarding all these issues. The weaknesses of the B.Ed (External) programme are discussed in chapter six section 6.6.

5.6.12 Conclusion

The government of Uganda has a commitment to provide education to all its citizens in accordance with its constitution and to guide this process various policies are in place. However, there is no comprehensive policy on distance education and according to the participants in this study, it is necessary for government to come up with a policy that will guide the growth, development and provision of distance education in the country and various issues that this policy should cover have been suggested.

5.7 SUMMARY

This chapter has been concerned with exploring the question of viability of distance education for the provision of education in Uganda. In chapters two and three, it was established that distance education is growing worldwide and is increasingly being used for various purposes especially for teacher education. This study focused on exploring the viability of distance education in Uganda and a number of vital findings have been established.

Although the study has established that there is general belief in the viability of distance education to meet various education needs in the country, there is hesitation regarding its efficacy to cater for education in the science related fields. This is largely because of the demands in these subjects for practical work, hands-on experience, specialist study materials and equipment, close interaction and supervision by tutors, and the likely high cost of providing these courses. The challenge therefore in Uganda is that, whereas any course can be provided by distance education, for this to be effectively carried out so as to meet the needs for education in the sciences, a lot must be done to cater for these demands otherwise the scientists trained are likely to be viewed as 'half-baked'.

Practical demands in teacher education are of great concern and need to be carefully integrated in all programmes regardless of whether these programmes are being presented by distance education or by face to face. This study was concerned with this and it has been established that catering for this is likely to be a huge challenge in distance education. Therefore, a combination of strategies should be employed taking into careful consideration the needs of the students and the needs of the schools and providing for them in a convenient, and flexible but yet relevant manner.

The challenge of running distance education in Uganda is partly because of various factors that are impacting its management, and delivery. A number of these factors were identified although the study did not establish the degree of impact of each factor. Nevertheless, each of these factors needs to be carefully taken into account to ensure more efficient and effective distance education programmes.

Policy on distance education was identified as one of the factors impacting distance education and the respondents generally agreed that Uganda needs to come up with a more comprehensive policy that will guide the running of distance education in the country. The study also identified the issues that this policy ought to cover. According to the respondents, this policy should concern itself with:

- Accreditation and recognition of distance education as a viable alternative
- Entry requirements and the courses that can be offered by distance education
- Rules and regulations governing distance education
- Funding of distance education programmes
- Human resource for distance education
- Student support for students in distance education programmes
- Access and democratisation of education through use of distance education
- Employment and remuneration of graduates of distance education programmes
- Institutions that can offer distance education and the administration and management of these institutions

So, according to the study, distance education has a huge potential but there are a number of factors that may be limiting the full realisation of this potential especially with regard to the running of science-oriented courses and with regard to meeting the practical demands of teacher education. However, with careful planning of the programmes taking into consideration their needs, it is possible to effectively and efficiently provide any course.