

# Delivery of Open, Distance and e-Learning in Kenya

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**Abstract:** *The increased demand and the need for continuous learning have led to the introduction of open, distance and e-learning (ODeL). In Kenya, provision of this mode of education has however been faced by various challenges, among them infrastructural. This study was a survey conducted in two public universities with major components of ODeL, University of Nairobi and Kenyatta University. These universities were purposively selected for the study whose respondents included the students registered in ODeL; lecturers and senior administrators were also involved. Analysis of the relevant documents was also undertaken while library literature was reviewed on the integration of ODeL in provision of primary, secondary and tertiary education in Kenya. The study established that efficient and optimal delivery of ODeL in Kenya faces both economic and infrastructural challenges. However, strengthening the existing relevant structures will address some of the challenges.*

**Key Words:** Open and Distance Learning, e Learning, Universities

## INTRODUCTION

The last few decades have witnessed fast expansion of higher education institutions in Kenya. This can be attributed to increased demand for higher education partly as a result of increased awareness of the positive benefits of education (Khan, A.W. (2001). Education, learning and acquisition of knowledge and skills have never been more central than they are today. It is becoming increasingly clear that our ability to cope with rapid changes will become the primary measure of success at both macro and micro levels (Khan, 1997). This increased demand has seen open and distance learning fast becoming an accepted and indispensable part of the mainstream educational platforms in both developed and developing countries, with particular emphasis for the latter (UNESCO, 2002).

Several factors have led to an increasing interest in distance learning. Family commitments especially among women are one such factor. Women, especially in the developing countries have various constraints compared to men in terms of time and resources. The advent of open, distance and e-learning (ODeL), however, has widened the opportunities for women and has helped to make education and training more accessible to them as they can now study within their homes. It allows them to study at their individual pace and seek and acquire skills for individual development while, at the same time, fulfilling family responsibilities (Brunner, 1991). We are living in an age of unprecedented societal change. Technological, cultural and social upheavals have impacted upon us with regularity, radically changing the way we live, work and learn (Wheeler, 2000; Edward, 1997). Accelerating change has often overtaken even the most stable of our social institutions, including education, and the rate of change will no doubt increase in the years ahead. Conflict is another factor. While the risk of war among developed countries will be low, the developing countries will face both, internal conflicts and regional interstate wars stemming from religious, ethnic, economic or political disputes. The number of refugees, homeless or displaced people may increase significantly requiring flexible educational provision.

There is a growing need for continued skills upgrading and retraining, and the technological advances that have made it possible to teach more and more subjects at a distance. The new technologies have served to push knowledge acquisition into the domain of the individual.

Concomitant with individualization comes the growing autonomy of learners. Technology and particularly its application in flexible, open and distance learning situations can be considered vital for increasing and widening access to learning and for the learner to become more autonomous (Laurillard, 1993). Flexibility of open and distance learning methodologies is the key factor in their emergence as the primary mode for lifelong learning.

Sub-Saharan Africa is one of the regions where the knowledge gap between the North and South is evident. Here, open and distance learning has been mainly used to widen access to basic education and to maintain and improve quality in the conventional education system, particularly through in-service training of teachers (UNESCO, 1991). There is growing attempt by countries in the South to adopt ODeL platforms in order to widen access to education and training. There is a high number of qualified Kenyans who cannot secure places in the existing internal faculties of the national universities. The much needed high level manpower, and an opportunity to maximize the use of limited educational resources both human and material, call for alternative and innovative method of learning which can make university education available beyond lecture halls in Kenya, not limited to a particular time, pace and space. Being a member of the Sub-Saharan Africa, the Kenyan Government has realized the potential of open and distance learning. It is essential for its educational planning that the opportunities offered by the new mode of learning be realistically examined within the framework of national development plans in general and educational policies in particular. This study was conducted against this background. It aimed at bringing out the status and the various challenges that have hindered realization of the full potential of open and distance learning in Kenya.

## **METHODOLOGY**

This study was a survey conducted in two public universities with major components of ODeL, University of Nairobi and Kenyatta University. These universities were purposively selected for the study while random sampling was used to select respondents who included the students registered in ODeL; lecturers and senior administrators were also involved. Data was collected through questionnaires for students and lecturers while document analysis and interview schedules were used for administrators. The data collected was then analyzed using descriptive statistics. The information obtained was discussed and aided in the drawing of conclusions and recommendations.

The students' questionnaire was structured to seek information on their reasons for enrolling in open and distance learning as opposed to the residential method of education; whether they are satisfied with the delivery of the programmes; the challenges they face in pursuing the programmes; and their suggestion on ways of improving the programmes. The questionnaire for the teaching staff was structured to seek information on: the training they have had on the delivery of open and distance learning; the mode of delivery they employ in open and distance learning; the type of technology they use to reach their distributed students; the challenges they face in provision of the programmes; and their suggestion on how the programmes could be improved. Information sort from the Directors of Open, Distance and e-Learning in the two universities included: the policy guidelines for open and distance learning; the facilities employed in open and distance learning; adequacy of resources for open and distance learning; the challenges the institutions encounter in provision of the programmes; and what they feel should be done to address the challenges.

Analysis of the relevant documents was also undertaken to capture information on the status of open, distance and e-learning and the policies guiding this type of education in Kenya.

Library literature was reviewed on the integration of ODeL in provision of primary, secondary and tertiary education in Kenya.

## **RESULTS**

### ***Open, Distance and e-Learning (ODeL) Initiatives in Kenya***

All Kenyan public universities and most of the private universities have introduced distance learning programmes in order to meet the increased need for lifelong learning. Other major providers include: the Kenya Institute of Education (KIE); the Kenya Institute of Special Education (KISE); African Medical Research Foundation (AMREF); Ministry of Health; Ministry of Agriculture; Ministry of Education; and a number of cross border institutions.

ICT integration in education in Kenya is more recent, and of a smaller scale. The use of computers in education has progressed from the acquisition of basic computer skills to computer-aided teaching, communications and research. There are international organizations aiding the integration of ICT in education in Kenya. The New Partnerships for Africa's Development (NEPAD) is one of the organizations working closely with the Kenyan government to introduce eLearning in primary and secondary schools. The schools already benefiting from the NEPAD project have access to computers and internet facilities. According to Ayere, Odera and Agak (2010), performance of these students in KCSE and especially performance in computer studies has been found to be higher than that of their counterparts in non-NEPAD schools at  $6.65 \pm 0.361$  -  $5.70 \pm 0.297$  in KCSE and  $8.27$  -  $6.69$  in computer studies, respectively.

Click on-line is another body that is participating in the integration of ICT in education in Kenya. The project is utilizing Customized Pocket PCs, referred to as e-slates, used instead of textbooks. These e-slates are wi-fi enabled and run on licence-free open source software to keep costs down. There is also the Kenya ICT Board of Computers for Community initiative whose initial objective is to provide a financial incentive towards purchasing a laptop for registered university students in public and private universities and colleges, the Wezesha project. The laptop initiative is funded by the World Bank and implemented by the Kenya ICT Board under the Kenya Transparency and Communications Infrastructure Project (TCIP).

### ***Challenges Facing Open, Distance and e Learning (ODeL) in Kenya***

In identifying the challenges, the study took into consideration equity in programmes delivery across the geographical locations represented in the study, programmes staffing, the resources used in the ODL programmes in Kenya and the levels of satisfaction of the programmes participants.

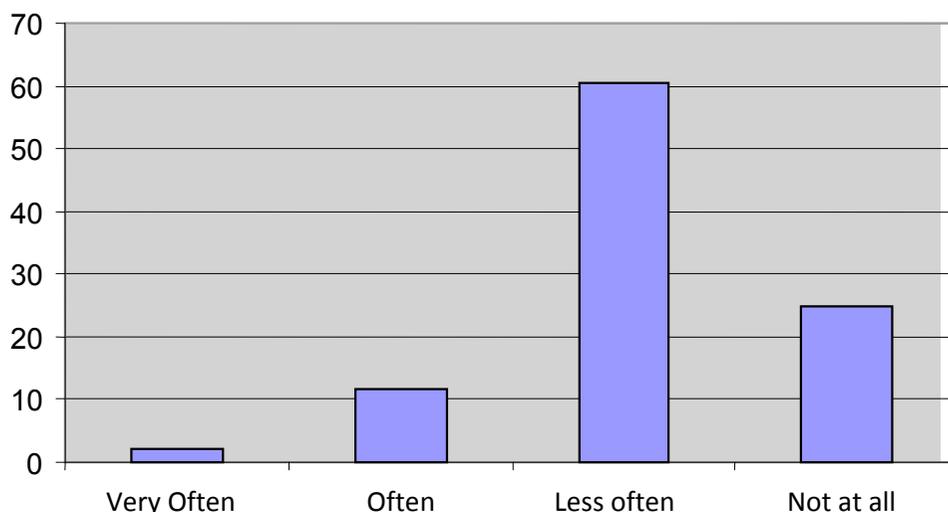
### ***Equity in Programme Delivery across Geographical Locations***

This was meant to collect information on whether open and distance learning delivery was consistent and appropriate across all the geographical locations, with Nairobi, Nyanza and North-Eastern Provinces representing the urban, rural and hardship areas respectively. Majority of the lecturer respondents felt that the programme delivery was not consistent across all the geographical regions represented in the study. Out of 257 lecturers who participated in the study, only (24.5%) felt that the open and distance learning programmes delivery was consistent across all the geographical regions while (75.5%) felt that there were disparities in the programmes delivery across the geographical regions (Table 1).

**Table 1: Lecturers Opinion on the Consistency of ODL Delivery across Geographical Locations**

Response	N	%
Yes	63	24.5
No	194	75.5
<b>Total</b>	<b>257</b>	<b>100.0</b>

This information was corroborated by that of students on the services offered in the various regions as shown on Figure 1.



**Figure 1: Students Opinion on ODL Evaluation Feedback**

A big percentage, 60.4%, of the students registered in open and distance learning in Kenya’s public universities received feedback on their end of semester examinations, assignments and continuous assessment tests less often while 24.8% did not receive feedback at all. It is also important to note that a greater percentage, 95% of the students who said that they did not get feedback at all and those who said that they received feedback less often were from North Eastern Province followed by those from Nyanza Province.

***Programme Staffing***

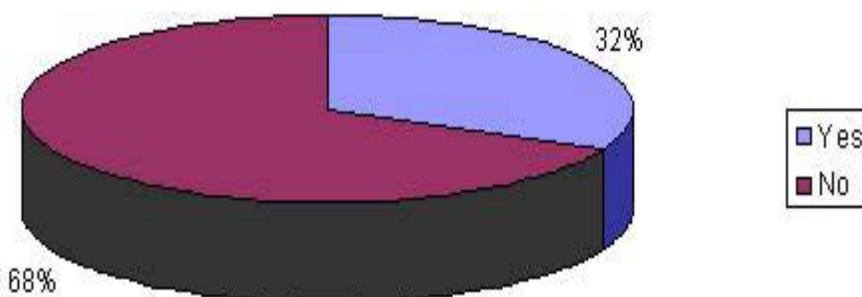
On staffing, the study sought to establish the levels of staffing and their training in ODL delivery techniques. The study found that the open and distance learning programmes offered by the two institutions relied heavily on staff who facilitate the residential mode programmes. These staff was assisted by staff hired on part-time basis to facilitate the open and distance learning programmes but no staff, especially teaching, were employed on full-time basis to particularly facilitate open and distance learning programmes in both institutions (see Table 2).

**Table 2: Open and Distance Learning Staff Contracts**

Employment Status	n	%
Full time	0	0
Part time	125	48.6
Residential Staff	132	51.4
Other	0	0
<b>Total</b>	<b>257</b>	<b>100.0</b>

Among the lecturers who responded in the study, (49%) were hired on part-time basis to facilitate open and distance learning delivery in the two institutions and 132 (51%) were lecturers who facilitate residential mode programmes and were contracted to facilitate the open and distance learning programmes delivery.

The study sought to establish whether the teaching staff that facilitated these programmes had been given special training on the delivery of open and distance learning. Few of the study respondents acknowledged having received training on delivery of this mode of education as shown in Figure 2 below.



**Figure 2: Teaching Staff Training on Open and Distance Learning Delivery**

Only 32% of the two hundred and fifty seven respondents had special training on the delivery of open and distance learning. These lecturers had received training through in-house workshops that were organized mostly by the University of Nairobi, Centre for Open and Distance Learning that was actively involved in in-house training on open and distance learning material development in Kenya and other East African countries.

### ***ODL Programme Resources***

The open and distance learning programmes in the two universities studied mainly use printed materials for instruction and supplementary materials such as audio-cassettes, video cassettes, slides and experimental kits which would reinforce each other in achieving the desired goals are generally not in use especially due to lack of funds. The institutions lack study guides which would give a broad view within a context of the courses to be studied.

The University of Nairobi owns resource centres in all the provinces in Kenya, while Kenyatta University owns physical facilities in Nairobi's Ruiru and Parklands Campuses and Mombasa Campus. In the rest of the provinces, the University utilizes rented facilities. According to the study findings, most of the students who responded felt that the centres were not effectively utilized (Table 3).

Table 3: Students Response on the Use of Resource Centres

<b>Response</b>	<b>n</b>	<b>%</b>
Very effective	23	3.7
Effective	192	30.6
Not effective	413	65.7
<b>Total</b>	<b>628</b>	<b>100.0</b>

Out of 628 student respondents, (34.2%) felt that the resource centres were used effectively while (65.8%) felt that the centres were not used effectively in providing the student support services

*Satisfaction of Participants in Open and Distance Learning*

Satisfaction in any service delivery is important and it acts as an indicator of the quality of service provided. Students who are consumers of the open and distance learning programmes were asked about their level of satisfaction and motivation. The study revealed that most of the respondents had very low levels of satisfaction (see Figure 3).

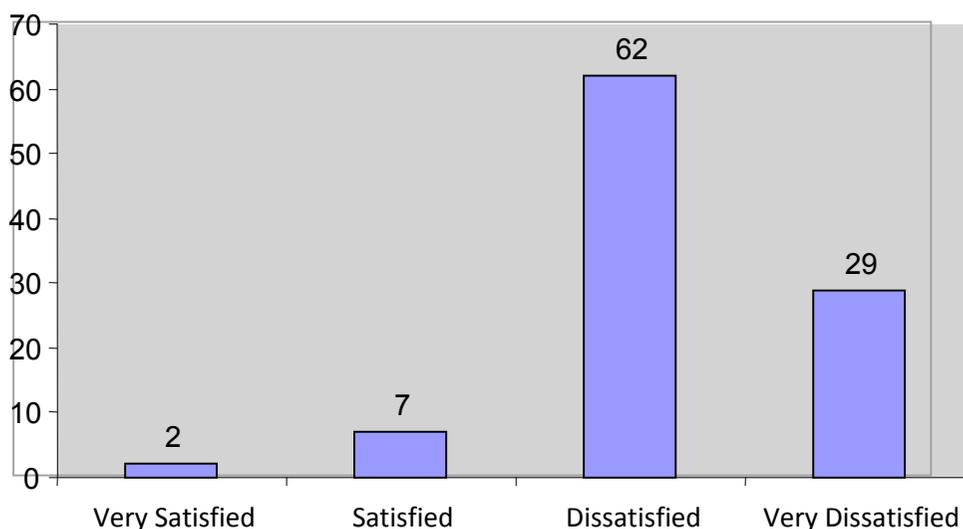


Figure 3: Levels of Satisfaction of Students in Open and Distance Learning

(90.8%) out of 628 students who participated in the study were dissatisfied with the programmes organization and delivery, while only about nine per cent (9%) were satisfied with the programmes delivery and organization.

A closer look at the relationship between the location of students and their levels of satisfaction revealed that (86.1%) of students from Nairobi, (57.7%) from Kisumu and (16.4%) from Garissa were dissatisfied with the programmes delivery, while (0.4%) of the student respondents from Nairobi, (33.5%) from Kisumu, and (83.6%) from Garissa were very dissatisfied with the programmes organization and delivery (Table 4).

Table 4: A cross Tabulation of Location of Students and their Levels of Satisfaction

Location	Levels of Satisfaction				Total
	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	
Nairobi	11 (3.7%)	28 (9.8%)	244 (86.1%)	1 (.4%)	284 (100.0%)
Kisumu	0 (.0%)	19 (8.8%)	123 (57.7%)	71 (33.5%)	213 (100.0%)
Garissa	0 (.0%)	0 (.0%)	21 (16.4%)	110 (83.6%)	131 (100.0%)
Total	11 (1.8%)	47 (7.5%)	388 (61.8%)	182 (28.9%)	628 (100.0%)

There were low levels of motivation among the facilitators too of open and distance learning in the country with only (14.4%) of the respondents saying they were motivated in carrying out their duties in open and distance learning (Figure 4).

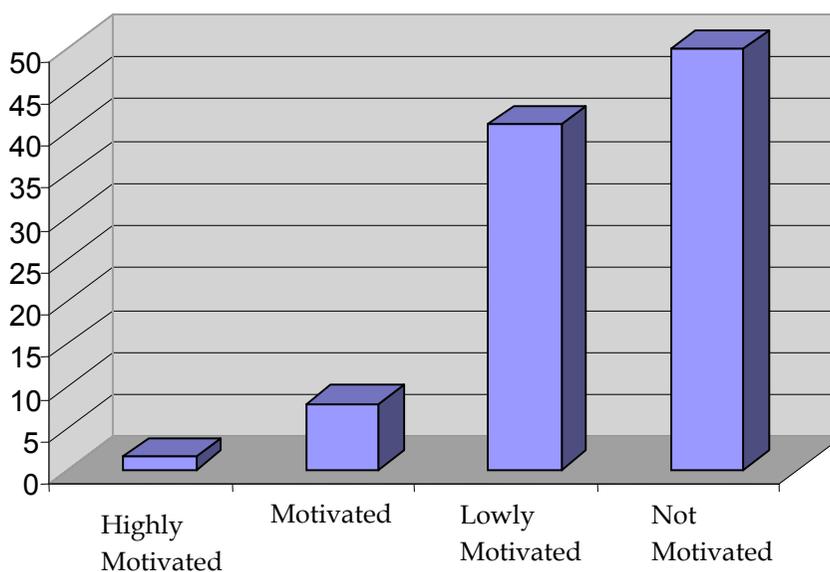


Figure 4: Levels of Motivation of Lecturers in Open and Distance Learning

It was found out that (85.6%) lecturers who responded in the study felt that the programmes organization and delivery were demanding.

Open and distance learning facilitators were in two employment contract categories according to the study findings. These were the facilitators hired to offer services on part-time basis and those who were lecturers in internal departments and were seconded by various departmental heads to offer their services to open and distance learning students. To determine if the staff contracts played any role in their motivation, the study sought to establish the relationship between staff contracts and their levels of motivation (Table 5).

**Table 5: Levels of Motivation of Staff in Open and Distance Learning**

Employment Status	Levels of Motivation				Total
	Highly Motivated	Motivated	Lowly Motivated	Not Motivated	
Part time	2 (1.6%)	11 (8.8%)	48 (38.4%)	64 (51.2%)	125 (100.0%)
Residential Staff	2 (1.5%)	9 (6.8%)	57 (43.2%)	64 (48.5%)	132 (100.0%)
<b>Total</b>	<b>4</b> (1.6%)	<b>20</b> (7.8%)	<b>105</b> (40.9%)	<b>128</b> (49.8%)	<b>257</b> (100.0%)

About 2% of lecturers, both full time and part time were motivated in facilitating the open and distance learning programmes while about half of the lectures (48.5% and 51.2%) both residential and part time lectures respectively were not motivated in facilitation of the programmes. The study did not establish any relationship between the facilitators' contracts and their levels of motivation.

## DISCUSSION

Access, quality, and equity in education is a concern for all nations but are particularly pressing issues for developing countries such as Kenya. The current Kenyan constitution and Vision for the 21st Century puts education and equity as top priorities. The rapid socio-economic developments taking place in Kenya because of the new government initiatives provides fertile ground for the exploration and development of educational innovations. Open, Distance and e-Learning (ODEL) is one of the new flexible modes of delivery that institutions and especially higher education institutions in Kenya have begun to develop.

Despite the exciting potential of ODeL in all areas of the world, it presents a number of challenges for both developed and developing nations. Various bodies offer ODeL in Kenya including universities both public and private. The importance of ICT in education has led the government to also set up ICT structures in primary, secondary, and tertiary institutions. Kenya has formulated a national ICT policy intended to, among other things, create an e-enabled and knowledge-based society by the year 2015. This is seen as a tool to empower the young learners to open up to and participate in the global society. The policy is to integrate ICT into education and training systems in order to prepare the learner and staff of today to enhance the nation's ICT skills for economic development (Sessional Paper No. 1, 2005).

As a result of new government policies on the adoption of ICT, various international organizations have been attracted to the country. The mission of these organizations, which include Computer Aid International, Computers for Schools Kenya and the New Partnership for African Development (NEPAD) e-schools, is to provide computers to secondary, primary and tertiary institutions so as to strengthen e-learning and other ICT education programmes

### *Programme Delivery across Geographical Locations*

On programmes delivery, majority of the lecturer respondents felt that there was no consistence across all the regions. These lecturers argued that even though the materials used in the delivery of the programme in the locations were the same and that they were facilitated by the same lecturers, there still existed a difference between the attention given to those in the urban centres, who are closer to reach and those who are far from the urban centers. This was attributed to the fact that the materials like the modules they mostly relied on did not get

ready in time which meant that there was need to check regularly with the programmes administration to find out when they got ready. This, in essence, means that those in the urban centres who have no problem with infrastructure like the road and communication network accessed the materials early enough and had enough time to study before the examinations which usually took place at the same time in all the regional centres. Students from the other areas, few of whom got access to the materials, were left with little time of studying the materials thus putting them at a disadvantage.

The other problem cited is in connection with evaluation of the students of open and distance learning. The respondents also argued that the continuous assessment tests and the assignments given to the students in the rural and especially the hardship regions took quite long to get to the facilitators. This was also attributed to the fact that there is poor communication and road network. This information was corroborated by the opinion of open and distance learning students on the evaluation process. These students also indicated that there were disparities mostly in receiving feedback on their tests and assignments since most of those who received feedback on assignments more regularly were from the urban centres (Figure 4).

### ***ODL Programmes Staffing***

On staffing, the study established that the open and distance learning programmes offered by the two institutions that participated in the study rely heavily on staff in the residential mode programmes. Dual-mode approach that makes use of existing academic staff and facilities like the case of universities in Kenya has been recommended by some studies as it reduces the competition for scarce resources often associated with the establishment of a new institution, and erode staff resistance by offering opportunities for direct participation. The study established that most (68%) of the teaching staff who facilitated these programmes had not been given special training on the delivery of open and distance learning techniques. It is important to note that well-trained and competent staff is important in providing quality open and distance learning yet in the effort to get open and distance learning programmes into operation in Kenya, insufficient preparation, time, and funding has been given to staff training. Few of the study respondents acknowledged having received training on delivery of this mode of education mostly through in-house sessions conducted by the University of Nairobi Centre for Open and Distance Learning. Majority of the respondents felt that it would be important for them to receive training on the ODL delivery techniques.

Given that open and distance learning is generally based on an indirect teaching relationship, using fundamentally self-teaching methods with the tutor acting as a facilitator to activate the skills and situations needed for self-education, the relatively small percentage of staff trained on open and distance learning would encourage most of the existing open and distance learning programmes to adopt patterns of traditional education delivery. This would not be appropriate for open and distance type of education.

Additionally, most of the respondents felt that the number of staff facilitating these programmes was not adequate and that additional staff were required in order to run the programmes effectively. According to the study findings, 90% of the respondents felt that the level of staffing was inadequate. This, they said, contributed to overloading, and hence lack of adequate attention to the students in the open and distance learning, a factor that has a bearing on quality of services offered to the students. The lecturers said that they were heavily burdened with many duties because majority of them were from internal faculties and were engaged in teaching the residential programmes.

### ***ODL Programme Resources***

The universities that participated in the study mainly use print material in delivery of ODL programmes. Computing resources, both hardware and software which are very crucial in open and distance learning are expensive to afford in reasonable quantities and quality. Production of high quality open and distance learning materials for the country's university programmes appears far more expensive because the cost would include the design of the curriculum and course authors' fee, remuneration of reviewers and assessors and the tremendous effort devoted to the presentation of the final product using graphics language and layout style. Staff members were thus forced to use curriculum and study materials meant for residential model of education, which cannot effectively communicate to the learners separated from their tutors. Besides, teaching staff members did not have access to modern libraries. The institutions were faced with lack of current journals and publications in distance learning and were unable to adequately subscribe to publications due to limited funds available in universities. The programmes also failed to benefit from economies of scale because of the relatively small numbers (8,215) of students enrolled in the programmes.

Technology being very dynamic, universities in Kenya cannot cope with the changes in terms of cost and relevancy, yet, quality open and distance learning can only be achieved through effective application of information technology. The internet forms technological breakthrough in open and distance learning tools and advances in the internet concerning access and quality of information are fundamental for making open and distance learning efficient and effective as an innovation in higher education in Kenya. Adequate internet connectivity throughout the country has not yet been achieved and the ODL programmes in Kenya largely supplement printed materials with audio cassettes.

The resource centres constitute an important base for transmitting content. They are meant to provide facilities for learning for individual and group tutoring and academic guidance and counseling. The open and distance learning students who responded in the study felt that the centres were not adequately utilized since they had to travel to the head offices to get study materials, which are not prepared and dispatched to the centers in time. They also felt that the centres did not do enough in facilitating individual or group tutoring and academic guidance and counseling.

### ***Satisfaction of Participants in Open and Distance Learning***

Satisfaction in any service delivery is important and it acts as an indicator of the quality of service provided. Most of the study respondents who included the students as consumers of the ODL programmes and the teaching staff who facilitate open and distance learning programmes, however, had very low levels of satisfaction. Some of the student respondents felt that their study centres were not adequately utilized in providing them with study materials as they had to travel to the main centres for the materials. They also felt that they did not receive adequate student support services, and they did not receive feedback on their assignments and examinations on time. Most of the teaching staff respondents attributed their low levels of motivation to inadequate resources especially the modules used in the programmes. They also felt that the work load was too much given that they were the same lecturers who facilitated the residential mode of education among other responsibilities like research and publications. The facilitators also raised the issue of compensation with the majority feeling that it was too low compared to the work-load and the time they put into provision of these services.

It is important to note that open and distance learning is fundamentally different in its structure, organization and delivery as compared to residential face-to-face instruction. It is

based upon a specialized division of labour in the development and provision of courses. It requires an appropriate technology to mediate between teacher and student because the two are separated in time and distance. These differences call for specialized processes for learning design, specialized techniques of instructions, and specialized organizational structures which are very different from residential university institutions. Universities in Kenya and other countries in the same level of development, facing similar challenges, need to recognize these unique attributes of distance learning through policy and planning initiatives necessary in expanding the use and potential benefits of this programme.

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