
FACULTY PERCEPTION ON THE TRAININGS IN OPEN, DISTANCE AND E-LEARNING INSTRUCTIONAL MATERIALS DEVELOPMENT: THE CASE OF UNIVERSITY OF NAIROBI, KENYA.

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ABSTRACT

This study was carried out to explore the perception of the faculty on the trainings in open, distance and e-learning instructional materials development which have been going on at the University of Nairobi. The objectives of the study were to assess the faculty opinion on the trainings and how trainings improve their skills. The population of this study consisted of 310 faculty drawn from science based departments that have embraced open, distance and e-learning as a mode of delivery. A sample size of 100 was then determined by picking from each department the faculty with high level of experience in open, distance and e-learning delivery methodology. The study used questionnaires, interview schedules and observational forms. Results indicate that the trainings on material development for open, distance and e-learning organized by the University of Nairobi had a positive effect on the faculty in science oriented disciplines. Furthermore, assigning sufficient time for demonstrations and hands on; clarity and presentation of the training content; occasions to discuss and actively participate in the training; meeting the expectations of the trainings and the pace of the training were some of the aspects that were perceived positive by faculty. The paper also concludes that trainings on material development not only help the faculty to develop quality distance learning materials but also enable them to use the skills and knowledge gained through the trainings to publish papers and books and gain good academic writing skills.

Keywords: Faculty; Open, distance and e-learning; Modules; Instructional design; Science; Trainings

INTRODUCTION

The University of Nairobi is the oldest and largest public university in Kenya. Its history can be traced in 1956 before Kenya became independent when Royal Technical College of East Africa (RTCEA), was established to offer education and training in technology and business. In 1963, the Royal College became the University College, Nairobi, as part of the newly established University of East Africa. Subsequently the University of Nairobi was established out of the University College, Nairobi in 1970. (University of Nairobi Strategic plan 2008-2013).

Currently the university has total population of over 70,000 students who have enrolled in various programmes with courses leading to certificates, diplomas degrees masters and Ph.Ds. The University has a great variety of disciplines within its wide array of academic programmes. These disciplines include: humanities and social sciences; natural and mathematical sciences; engineering and the built environment; arts and design; computing and informatics; law and business studies; medicine and health sciences; agriculture and food sciences; veterinary and animal sciences; and education.

Since its inception, the university was largely a single mode institution meaning its main mode of delivery was face to face until 2005 when the center for open and distance learning was established with a mandate to collaborate with the internal departments to offer their existing programmes through open, distance and e-learning modes. (Centre for Open and Distance Learning, Strategic Plan 2008-2013)

Since its establishment the Centre therefore embarked on training faculty members of the entire university on material development for distance learners. In the process materials were developed and the respective departments were able to offer there programmes through open, distance and e-learning. Currently there are over 70 programmes of the university that are offered through open, distance and e-learning. (University of Nairobi, Academic Calendar 2015-2016).

Despite this progress most research which have been carried out on open, distance and e-learning in the university have focused on the issues touching on the systems or learners. Few if any have focused on the faculty perception on the training which is given to them. The role of faculty in open, distance and e-learning systems cannot be overemphasized. Khan and Chishti (2012) stress that the role of faculty remains unique and they act as the main source of information and learning for the students. The success of any distance education effort rests squarely on the shoulders of the faculty. This is because they carry the heaviest responsibility of assembling the course content and developing an understanding of learners needs (Wafula, 2013).

More often they are faced with special challenges including:

- Developing a working understanding of delivery technology, while remaining focused on their teaching role.
- Functioning effectively as a skilled facilitator as well as content provider.
- Adapting their teaching styles taking into consideration the needs and expectations of multiple, often diverse, audiences.

It is with this background that this study was initiated to seek their perception on the trainings they are given to help them develop materials for open, distance and e-learning students.

OBJECTIVES OF THE STUDY

The objective of this study was to investigate faculty perceptions on the trainings on instructional material development for open, distance and e-learning students that are carried out by the university. The study further assessed the opinion of faculty on how the trainings have improved their skills

The trainings on material development for open, distance and e-learning

Faculty training is a process of enhancing the capacity and capability of faculty in improving their pedagogical skills and content knowledge. Murangi (2009) opines that ongoing professional development and training of faculty is vital for the success of any dedicated open and distance learning institution. He further argues that effective development and delivery of ODL programmes require appropriate systems of support for faculty at policy, materials and learner support levels.

The University of Nairobi organizes trainings of faculty to help them develop materials for open, distance and e-learning learners. The purpose of these trainings has been to equip the faculty with the necessary skills and competencies to develop materials that are suitable for open, distance and e-learning students who are separated from their lectures most of the time during their studies. These trainings normally focus on the pedagogical issues as well as issues touching on the characteristics of open, distance and e-learning learners who are target group or consumers of the materials developed. (Centre for Open and Distance Learning, Training Manual, 2008).

The trainings normally take the form of residential sessions in which faculty are invited for a four or five days training session in which the participants are guided through the processes of developing the materials. The participants are also assigned some tasks that they are expected to complete by the end of the training session. Some of the aspects of the trainings in which the faculty is taken through include the following:

- Materials Development Process
- Overview of Instructional Systems Design
- Overview of Distance Education and e-Learning
- Understanding the Learners' characteristics and their implications to developing self-instructional materials.
- Understanding the Syllabus and unpacking it to develop module and lecture outlines
- The Teaching- Learning systems in distance delivery modes at the University of Nairobi
- Considerations for developing Course objectives and learning outcomes.
- Providing for interactivity and visualization in self-instructional materials

These trainings are normally facilitated by a team of experts in open, distance and e-learning who include instructional designers, content developers, graphic designers, audio-visual experts and language experts (Centre for Open and Distance Learning, Training Manual, 2008).

METHODS

For the evaluation of the perception of faculty towards the trainings on material development for Open, distance and e-learning students, both qualitative and quantitative methods were used to collect data. Quantitative data collection was carried out with a questionnaire, while interviews and observations were conducted to gather qualitative information.

The questionnaire used was a self-completing questionnaire comprising close-ended questions on the aspects of the trainings used when developing materials for distance learning students. These consisted aspects touching on the clarity of training outcomes, the quality and relevancy of presentations, time allocation for individual work, the pace of the training, the quality of audio visual

materials used in the trainings and the duration of the trainings. There were also the pedagogical components of the trainings. The responses were gathered on a four-point Likert scale ranging from strongly disagrees to strongly agree. (Strongly disagree [1] to strongly agree [4]).

The interview schedule consisted of standardized open-ended questions in which the exact words and sequencing of questions were determined in advance (Patton,1980), and supplemented with some probing questions. The interview schedule also addressed the same themes and, in addition, questions related to their application of the skills and knowledge gained during the trainings. The interview schedule was administered to faculty who had experience dealing with distance learning students and who had developed modules before.

The observational study was carried out during the trainings using the observation forms. The researchers were able to observe and hear the comments from faculty during individual work sessions where one on one consultation between faculty and facilitators and during the sharing sessions where faculty members shared their output in a plenary. During observations, researchers adopted a passive non-intrusive role with-out interfering with the faculty, as recommended by Cohen et al. (2000).

Since this research adopted mixed methods, triangulation was used to achieve reliable evidence and validate results.

The population of this study consisted of 310 faculty drawn from science based departments that have embraced open, distance and e-learning as a mode of delivery. The choice for science based departments is premised on the fact that, a few decades ago, teaching science disciplines through ODL methodology was regarded as a challenge (Kulasekara et al.(2011).

Using purposive sampling, the sample size was then determined by picking from each department the faculty who have experience with ODL delivery methodology. Table 1 below gives the sample size determination.

Table 1: Sample Size Determination

<i>Department</i>	<i>Population</i>	<i>Sample</i>
Physics	50	20
Chemistry	40	20
Meteorology	50	25
Biology	60	10
Engineering	20	5
Pharmacy	40	10
Dental Science	50	10
TOTAL	310	100

RESULTS

Faculty perception on the trainings in material development

The faculty highly appreciated all aspects of the trainings that they are given to help them develop open, distance and e-learning materials. In general there was no aspect of the trainings that received a negative perception from the faculty except the duration of the trainings. Some of the aspects that were rated highly by the faculty included provision of adequate time for demonstrations and hands on activities (90%), clear and relevant training content (85), good pace of the training(80%),

provision of time for sharing, participation and discussion(80%), and having their expectations of the training being met (80%). The perceptions of the training received are given in Table 2.

Table 2: Faculty feedback on aspects of training in materials development

	Frequency (%)			
	Strongly disagree	Disagree	Agree	Strongly agree
1. Objectives of the trainings were clear	0	0	30	70
2. The expectations of the trainings were met clearly	0	0	20	80
3. The training content and their presentations were clear	0	0	25	85
4. There was adequate time provided for various activities	0	0	40	60
5. There were adequate course materials and handouts	0	0	24	76
6. The pace of the course was good	0	0	20	80
7. The audio-visual materials used in the trainings were excellent	0	0	30	70
8. There were occasions to discuss and actively participate	0	0	20	80
9. There was adequate demonstrations and hands on	0	0	10	90
10. The workload was manageable	0	0	40	60
11. The duration of the training was sufficient	0	25	25	50

Similarly, the findings from the interviews and observations recorded indicated that the faculty perceived the following aspects of trainings to be key components: providing adequate time for demonstrations and hand on, providing time for discussions and participation, setting a good pace of the course and meeting the expectations of the training.

Opinion of faculty on how the trainings have improved their skills

The second objective of this study was to get the feedback from the faculty on how the trainings in material development improved their skills and how they have used the new skills in lecturing for both face to face and open, distance and e-learning students. The faculty was also asked to give their opinion in terms of how they have used the skills gained through trainings to perfect their writing skills and in publication.

The results show that all the faculty sampled were in agreement that the trainings they received helped them to improve their skills. Majority (92%) of the faculty strongly agreed that the trainings in material development made their work (lecturing) easy.

Furthermore, a majority (91%) strongly agreed that the trainings have enabled them to restructure the way they deliver the content while 90% said that the trainings have helped them to be ready for

their classes all the time. In addition, 85% said that the trainings enabled them to update their content, 82% strongly agreed that trainings enabled them to teach face to face classes better and 79 % strongly agreed that the trainings helped them to know if they had achieved the outcomes set in their lectures.

Finally a majority of 76% strongly agreed that that they have used the knowledge gained through the trainings to write and publish papers and books in their various disciplines while 75% strongly agreed that through trainings they gained good academic writing skills. The responses received from the faculty on their opinion on how the trainings have improved their skills are given in table 3.

Table3: Opinion of faculty on how the trainings have improved their skills

		Frequency (%)			
		Strongly disagree	Disagree	Agree	Strongly agree
1.	The trainings have enabled me to be ready for my class all the time	0	0	10	90
2.	The trainings have enabled me to update my content	0	0	15	85
3.	The trainings have enabled me to restructure the way I deliver the content	0	0	9	91
4.	The trainings have enabled me to teach face to face classes better	0	0	18	82
5.	I have used the knowledge to write and publish papers and books	0	0	24	76
6.	I have gained good academic writing skills	0	0	25	75
7.	I can know gauge if I have achieved the outcomes set in my lectures	0	0	21	79
8.	With a module written, lecturing has become easy	0	0	8	92

Similarly, findings from the interviews and observation on the opinion of faculty on how the trainings improved their skills indicated that the trainings helped the faculty to improve their skills in the following areas: lecturing was made easy since the faculty had well written modules with all content properly arranged, there was improvement in terms of content delivery in class, time taken to prepare for the lecture was shortened and faculty had updated the content of their courses.

DISCUSSION

Perception of faculty on trainings in material development

From the findings indicated in this paper it is clear that the perception of faculty on the trainings given during material development for open, distance and e-learning students of the university of Nairobi is viewed as a positive gesture in not only enabling the faculty to prepare good quality materials for distance learners, but to also enhance the skills and knowledge of the faculty.

Except for the duration of the training, all respondents agreed with all the aspects that are incorporated in the training. This could be because of the training design that the university uses in training the faculty.

Of particular mention is the time given for demonstrations and hands on which was rated highly by the faculty. During these trainings the participants are normally given time to demonstrate on the materials they are working on. In the process they get feedback from the experts who help them to improve on their materials. In addition time is availed for participants to work on their individual modules.

Opinion of faculty on how the trainings have improved their skills

From the findings indicated in table 3 all the participants agreed that the trainings organized by the university have enabled them to improve their skills. A majority (92%) strongly agreed that the trainings enabled them to perform their duties of lecturing easily. This could be because of the pedagogical skills they gained through the trainings.

A majority (85%) also indicated that they were able to update their content as a result of the trainings. This is in agreement with Imran, et al (2008) who postulate that for distance education, the course structure and the coverage of the topic should be neither too extensive nor too limited. Furthermore, the course content must be up to date, incorporating the latest research on theoretical concepts and empirical studies.

Furthermore, the findings from this study are in concurrence with Khan and Chishti (2012) who found that the staff training on professional abilities of university teachers had a positive effect on the faculty by improving their content knowledge, teaching methods and their research work.

CONCLUSION

From the findings indicated in this paper it can be concluded that the trainings on material development for open, distance and e-learning students organized by the University of Nairobi had a positive effect on the faculty in science oriented disciplines. Furthermore, assigning sufficient time for demonstrations and hands, clarity and presentation of the training content, and the pace of the training were some of the aspects that were perceived positive by faculty. The paper also concludes that trainings on material development not only help the faculty to develop quality distance learning materials but also enable them to use the skills and knowledge gained through the trainings to publish papers and books and gain good academic writing skills.

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