INFLUENCE OF PERCEPTION OF CONTENT OF PRINT INSTRUCTIONAL MEDIUM ON LEARNER PARTICIPATION IN DISTANCE LEARNING: THE CASE OF BACHELOR OF EDUCATION PROGRAMME UNIVERSITY OF NAIROBI, KENYA.

Dr Joyce otieno Ph.D¹, Dr Peter Keiyoro Ph.D², Dr. Angeline Mulwa Ph.D³ and Dr. Omondi Bowa Ph.D⁴.
1. University of Nairobi, School of Continuing and Distance Education, P.O. Box 30197, Nairobi, Kenya.
2. Senior Lecturer, University of Nairobi, University of Nairobi, School of Continuing and Distance Education, P.O. Box 30197, Nairobi, Kenya.
3. Lecturer, University of Nairobi, School of Continuing and Distance Education, P.O. Box 30197, Nairobi, Kenya.
4. Senior Lecturer, University of Nairobi, School of Continuing and Distance Education, P.O. Box 30197, Nairobi, Kenya.

Abstract

There has been a shift worldwide in the delivery of distance education from the use of print medium towards Information and Communication Technology (ICT) approach. However, print medium still remains the most preferred mode of transmission of distance learning especially in developing countries and Kenya being no exception. This is due to its usefulness in cases where infrastructure that supports the use of other media especially those that are web-based are still limited. This study was carried out at the University of Nairobi. Its purpose was to determine how learner perception on content of print instructional medium influences participation in the programme. Three aspects of content were studied which included the perception of scope, currency and relevance of the content and how these influence participation in distance learning in the programme were investigated. A total of 547 Bachelor of Education students in the programme were targeted for the study. Out of these, 231 participants were selected through simple random sampling procedure. The researchers also interviewed 11 full time and 15 part time lecturers who were involved in the programme. Questionnaires and interview guides were used to collect data. Mixed method approach was used that involved qualitative and quantitative data collection. Data was analyzed using descriptive and inferential statistics such as linear regression and Pearsons correlation coefficients. The decision to reject or fail to reject the null hypothesis was based at 0.05 levels of significance. Results indicate that 77% of student respondents perceive scope of the content as broad and therefore useful for participation in distance learning, while 94% of lecturers had a similar view. On the other hand, 98% of students perceived the content as relevant to their participation in the programme. While 94% of the lecturers had a similar view. With regard to currency of content of print instructional medium, 86% of
student respondents viewed content of study units as current and therefore useful for their participation in distance learning process, while 50% of the lecturers had a similar opinion. Therefore, the distance learning programme had adequate scope, relevant content but did not have much current information in given subject areas. Hence, there is need to periodically review the content of print instructional medium in order to make it current and relevant to 21st century learners. This would go a long way in accelerating the acquisition of Global Sustainable Development Goals (SDG) relevant to education in Kenya.

Copy Right, IJAR, 2016. All rights reserved.

Introduction:-
There has been an increase in the expansion of distance learning institutions worldwide. Kenya in particular has witnessed rapid expansion in the institutions of higher learning since 2013. This has come about as a result of growing demand for higher education. The increased demand for higher education has also led to the growth of Open and Distance Learning (ODL) institutions which have acted as stop gap measure to fill the demand for admission to local Universities. According to Nyerere and Jacklin (2012), distance learning is increasingly becoming popular because of its flexibility and learner friendly approach. As more and more institutions adopt Open and Distance Learning, there is need to ensure that the main stakeholders fully participate in learning and get quality education that can enable them to fare in the job market. Despite the existence of various modes of delivery for distance learning, providers in developed and developing world have continued to use print medium in the delivery of distance learning (Hamwette, 2012) and (Gbenoba, 2012). Learner participation in distance learning depended on the medium chosen as well as the learner’s mind set. For example, it has been observed that, distance learners may only watch television programme designed for distance learning when the programmes are integrated in the print materials for reference (Johnson and Onwuegbuzie, 2004). Studies have also shown that print medium in form of study units or modules is the most commonly used delivery mode in distance learning (Osei, 2010; Gasper, 2013)

Because of the inherent advantage of distance learning there has been an increase in the number of learners opting for distance education in both developed and developing countries (Wood, 2004). However, the scope, relevance and currency of content of print medium determines the level of participation of the learner in a distance learning programme. The researchers therefore focused on the nature of the content used in the delivery of distance learning at the University of Nairobi and how the learner perceived the study materials as learning resources. Hence, the specific objectives of the study were to determine how perception current learners on the scope, currency and relevancy of content influenced their participation in the distance learning programme. The question raised was: do the print medium content have adequate scope, relevancy, currency that could influence learners participation in the programme? This study, therefore, sought to determine answers to this question in order to establish the influence of content of print medium on learner participation in distance learning programme. Most of the study units used in the programme were developed in the nineteen eighties and had been reprinted over the years without much change in the content (Nzuki, 2012)

The University of Nairobi was the first public university to offer distance learning programmes in Kenya and East African region (Mboroki, 2011). The delivery of the distance learning in this University have to a large extent relied on print medium and minimum face-to-face to support the curricula. In the University of Nairobi, print medium is used in the form of study units. These are standardized self-contained curricular segments that constitute an educational course or training programme (Gasper, 2013). The University has specific regulations that require that the students learn 80% of their total course content on their own through print medium (Bow, 2011; Hamwette, 2012).

In most cases the success of a distance learning programme depends largely on interpretation of the print material by the end user who in this case is the learner, (Wood, 2004). To ensure quality, South Africa Institute of Distance Education (2003) suggested that print medium should be revised periodically in line with current global trends based on feedback that is obtained from the students. The level of scope, accuracy and authenticity of content must always be in line with the requirements of the curriculum demands of the day, (Kolimba, Kigadye and
Reuben, 2012). In a study carried out by Kimani and Kara (2012) it was suggested that the reasons why learners rated print medium poorly was because the study materials were recycled with no updated content over a long period of time. The study on relevancy, accuracy and scope of the print medium was necessary to learners in this programme who were separated from the tutors in terms of time and space and hence learnt on their own using print instructional medium as the main source of their learning experiences. Kenya as a state is a signatory to United Nations Convention on global Sustainable Development Goals (SDG). One way of achieving these goals that are relevant to education is to enable its citizens to acquire adequate, relevant and current knowledge and skills through education. Distance mode of educating its citizens would do this not only through content delivery but also by its ability to expand learning opportunities in a flexible manner to all.

Methodology:

The University of Nairobi Bachelor of Education in humanity studies or Arts programme by distance learning relies heavily on print instructional as a medium of delivery. Learners are issued with study materials at the beginning of every semester for their home study (Bowa, 2010). These study materials which are in printed form are supposed to act as the teacher during the entire period of the study. The study units or printed materials are required to adequately cover the intended segment of the curricula and depth that should ensure adequacy in the scope, relevancy and currency of knowledge of content required for a degree course of study. Hence, the target population for this study were students in their final year of study in the Bachelor of Education (Arts). The finalists were purposively sampled because they had stayed the longest in the programme and had studied most of the learning materials. Part time and full time lecturers in the programme were targeted in order to corroborate their responses with those of students. The total student population was 574. A simple random sampling procedure was used to obtain a group of 231 students and 24 lecturers who were the respondents in this study.

The study used mixed method approach, that is, qualitative and quantitative paradigms during data collection process (Johnson and Onwuegbuzie, 2004). Research instruments included questionnaires which were administered to students while interview guides were used to collect data from full time and part time lecturers. The questions were arranged in Likert scale ranging from 5 to 1 with predetermined responses from Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1). The frequencies of responses were analyzed using descriptive statistics while the hypotheses were tested at 0.05 level of significance and analyzed using inferential statistics.

Content analysis of selected print instructional medium was carried out. The aim of this procedure was to corroborate questionnaire and interview results from respondents with expert judgment on the status of print instructional medium used in distance learning in the University of Nairobi. The Planning, Administration and Curriculum (PAC) study course was selected. The syllabus for this course consisted of Environmental studies (PAC102), Curriculum development (PAC202), Education and development (PAC303) and Distance studies (PAC311). Data was collected using content analysis guide which was designed to establish year of publication or review of a given study unit, design as per accepted criteria of distance learning instructional medium, scope, currency, relevancy and depth of coverage of all topics in each study Unit.

Results and Data Analysis:

The data on content variables of this study were recorded and analyzed using frequencies, percentages, regression and correlation analysis as follows:

Perception of scope of print medium content and participation:
Respondents were asked to indicate the extent to which they agreed that the content of print instructional medium was broad and enabled them to participate in distance learning. The Responses were as indicated on Table 1.
Table 1: Learner perception of scope of print instructional medium

| Learner perception of scope Of print instructional medium in frequencies | Learner participation in distance learning |
|--------------------------------------------------------------------------|------------------------------------------|
|                                                                          | 0-25 | 26-50 | 51-75 | 76-100 | Total |
| Strongly Disagree                                                        | 2    | 1     | 3     | 7      | 13    |
| Disagree                                                                  | 0    | 1     | 3     | 1      | 5     |
| Undecided                                                                | 0    | 7     | 7     | 5      | 19    |
| Agree                                                                    | 7    | 9     | 31    | 36     | 83    |
| Strongly Agree                                                           | 0    | 1     | 24    | 13     | 38    |
| Missing system                                                            | 16   |       |       |        |       |
| Total                                                                    | 9    | 19    | 68    | 62     | 158   |

A total of 121 (70%) of the respondents agreed to strongly agreed that content is fairly broad and enabled them to participate in distance learning programme. Majority of respondents 130 (75%) also make reference to study units in the range of 51 to 100 percent. This indicates that the learners found the scope of print instructional medium adequate for their participation in the programme.

Perception on currency of the print materials and participation:

In order to establish learners perception of currency of print instructional medium the respondents were asked to indicate their perception of content of print instructional medium in a scale ranging from agree to strongly agree and the results are as tabulated on Table 2

Table 2: Learner perception of currency of content of print instructional medium

| Learner perception of currency of content Of print instructional medium in frequencies | Learner participation in distance learning |
|--------------------------------------------------------------------------------------------|-------------------------------------------|
|                                                                                           | 0-25 | 26-50 | 51-75 | 76-100 | total |
| Strongly Disagree                                                                         | 0    | 1     | 10    | 8      | 10    |
| Disagree                                                                                  | 4    | 4     | 5     | 4      | 17    |
| Undecided                                                                                 | 2    | 1     | 0     | 6      | 9     |
| Agree                                                                                      | 0    | 18    | 45    | 15     | 78    |
| Strongly Agree                                                                           | 0    | 13    | 25    | 13     | 51    |
| Total                                                                                    | 6    | 37    | 85    | 46     | 168   |

Results on learner perception of currency of print instructional medium indicate that 128 (74%) of the respondents perceive content as current and they make reference to them while doing assignments in the range of 51 to 100. This is an indication that currency of content had influence on learner participation in the distance learning programme.

Perception on relevance of print medium and participation

In order to establish learner perception of relevance of content of print instructional medium, the respondents were asked to indicate their perception and the extent to which they make reference to print instructional medium. The results obtained are tabulated in Table 3.
Table 3:- Learner perception of relevance of print instructional medium and participation in distance learning.

| Learner perception of relevance of print Instructional medium in frequencies | Learner participation in distance learning |
|----------------------------|-------------------------------------|
|                            | 0-25   | 26-50  | 51-75  | 76-100 | Total |
| Strongly Disagree          | 0      | 0      | 0      | 0      | 0     |
| Disagree                   | 0      | 0      | 0      | 0      | 0     |
| Undecided                  | 2      | 0      | 0      | 0      | 2     |
| Agree                      | 19     | 20     | 26     | 20     | 85    |
| Strongly Agree             | 7      | 40     | 20     | 20     | 87    |
| Total                      | 28     | 60     | 46     | 40     | 174   |

Results on learner perception of relevance of print instructional medium indicate that 172(99%) of the respondents perceive content to be relevant to their participation in distance learning programme. It can therefore be argued that the content of print instructional medium was relevant to learner participation in the programme.

Relationship between learner perception and participation in the programme:-

Objective of the study was to establish the influence of learner perception of content of print instructional medium on participation in distance learning. This objective was informed by the Hypothesis : Ho1: Learner perception of content of print instructional medium has no influence on participation in the distance learning programme. This hypothesis was tested by regressing content variable on learner participation guided by the equation Y = β0 + β1X where Y was the dependent variable (learner participation) and X the independent variable (Content of the study). The results are as presented on Table 4.

Table 4:- Regression results for the influence of Content of print instructional medium on learner participation in distance learning

| Model | R   | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-----|----------|-------------------|---------------------------|
| 1     | .251* | .063     | .057              | .55790                    |

From the model summary table 4 the regression which measures the relationship of variables was 0.251 meaning that there is positive relationship between content of the study units and learner participation in distance learning (P > 0.05). The overall regression model for content of the study units was statistically significant (p > 0.05%) and can be used for prediction purposes at 5% significance level, this further indicate that the independent variable used in this study (Content of Study units) is statistically significant in predicting the overall learner participation in distance learning. It can therefore be concluded that content of study units had influence on learner participation in distance learning.

Lecturers Perception on content of print instructional medium:-

A total of sixteen lecturers were interviewed on three parameters of the content of the study units 94% of the respondents interviewed agreed that the scope was covering adequate information for the given level of study. On currency and relevance, all the lecturers (100%) agreed that the study units were relevant but not current. This was also corroborated by content analysis results that indicated that content have not been reviewed for a long period of time that is since 1980s. The lecturers (80%) perceived the entire content as being very important during preparation for continuous assessment tests and final examinations.

Content analysis of a Selected print instructional medium Course: -

Results showed that the Environmental Education unit (PAC 102) had no indication as to when it was first published. Year of reprint was indicated to have been more than ten years ago. The content did not capture current issues in education. This was contrary to Kenya Institute of curriculum Development (KICD)(2014) policy issues on education on curriculum review that require a review be carried out at least every five years so as to capture emerging issues in education and society. This did not capture issues such as global warming, flooding, drought and pollution. The climate change is an issue of great global concern which any educationist should not ignore.

The results showed that the currency of Curriculum Development unit (PAC 202) was satisfactory although not relevant. The results from analysis Education and Development unit (PAC 303) showed that it was last printed in...
1997. The unit deals with education and development which is an evolutionary area and calls for review. Relevance of content had poor rating. A fair section of the unit touches on historical development education system in Kenya which is relevant but fails to reflect on the current development like Education Act 2013 and various commissions and ministerial decrees that have brought about changes in the education system and policy changes like free basic education, Education for All and global Sustainable Development Goals on education among others.

Currency of content of Distance learning unit (PAC 311) had good rating whereas relevance had satisfactory rating. The unit lacked content touching on latest technologies used in distance learning. The modes of Distance learning are changing all the time hence quite evolutionary. The content should adequately capture concepts like e-learning and discuss latest delivery modes such as mobile phone learning, Open Education Resources (OERS) among others. Overall results from content analysis of selected PAC study units indicated urgent need for review the print delivery medium in this programme.

**Discussion of the findings:**
Participants agreed that the content was broad and had the required depth. Some lecturers however, were of the opinion that some sections needed to be revised. On currency of print instructional medium, the respondents (74%) indicated that the content is current. This perception differed with that of the lecturers and content analysis done on PAC study units. Analysis (75%) by lecturers on content indicated that some aspects of the content were out dated especially for curriculum development unit (PAC 202) and environmental studies (PAC 102). The lecturers were of the opinion that there was urgent need to review the study units. These findings agree with those of Nzuki (2012) which indicated that the study materials were developed in 1980s and have not been reviewed over the years. The findings also concur with those of Kimani and Kara (2012) which indicated that study units in Kenyatta university were recycled for a long time without being updated. Imran and Muhammad (2008) observed that technology is always the “fourth force” in the classroom the others being the content to be learnt, the teacher and the student. The teachers or lecturers in this study have indicated that there is an urgent need to review the content of study units. It should be noted that the students who are the recipients of knowledge may not be in a position to judge the currency of content being delivered to them yet it determines the knowledge and competency level of the learners for award of the relevant degrees. The importance of improving the content in study units in distance learning is supported by the fact that if the media do not deliver quality instructions or influence student achievement then it will be like a truck that delivers our groceries to us but does not change the nutritional quality of the groceries which it carries to us but only the nutritional content of the groceries can improve our health. Hence the need to improve the quality of the content contained in the instructional media so that the academic needs of the learners can be met.

Writing for Turkish online journal, Imran and Muhammad (2008) stresses the importance of updating content of a distance learning programme by indicating that the course content must be up to date by incorporating the latest research in theoretical concepts and empirical studies. The level of difficulty must be appropriate to the target group. Content designers should also keep in view socio-cultural beliefs and practices, values, trends and emerging issues in the society. It means therefore that for effective change to take place in the learner relevance of the content is important. The course materials which constitute the mainstay of distance education are crucial to the success of distance learning programmes. This study has underscored the need to review content of print instructional medium used in delivering distance learning at the University of Nairobi. The content is adequate in terms of depth and breadth but need for review to accommodate emerging issues in education. Notably, curriculum development and environmental studies units have been singled out to be in urgent need for review. To ensure quality of print instructional medium, South Africa Institute of distance education (2003) suggested that modules (study units) be reviewed periodically in line with current trends and be based on the feedback obtained from students. This is also in line with standard practice and principles of curriculum review and development for every five years (KICD Act 2014) as recommended by Kenya Institute of Curriculum Development.

**Conclusion:**
The study showed that content of print instructional medium has a significant influence on learner participation in distance learning. The study also revealed that content of PAC study units had enough scope that enabled the learner to be competent in the field of education. The Content also enabled the learner to acquire relevant knowledge in the suitable field. The information in the content, however, is not current. For example, the PAC study units need to be reviewed to make them current and accurate since a lot of changes have taken place in the education sector both
locally and internationally since the study units were developed in 1980s. Some of these changes are not captured in the study units. The course content should be up to date, incorporating the latest research in theoretical concepts and empirical studies. It is only when this is done that the academic competence of distance learners in the programme can be assured.

**Recommendations:**

There is need to review content used in the delivery of distance learning so that distance learners may have current knowledge and skills on various aspects of the curriculum to make them competent in their field of specialization. This should be done after every three years due to evolutionary nature, dynamics and trends in education sector.

**References:**

1. Bowa, O. (2010). Relationship between Learner characteristics and academic performance of distance learners: The case of external degree program, University of Nairobi. (Unpublished PhD thesis)
2. Cooper, D.R and Emory C. W (1995) Research Methods Chicago: The McGrow-Hill Company
3. Gasper, R.(2013). *Trends in Distance Education* http://www.distancelearning.com/trends-in-distance-learning. Retrieved 10/12/2013.
4. Gbenoba, F. (2012). *A quest for increased Interactivity in the print instructional resources of open and distance Learning (ODL) instructions in Africa: Writing the study units of National Open University of Nigeria (NOUN) print course materials.* Journal of the Open University of Tanzania Vol. 13, 2012.
5. Hamwette, W (2012). *Quality Assurance in Modules at the Institute of Distance Education, of the University of Zambia.* Journal of Open University of Tanzania Vol.13 2012.
6. Imran Y., Nadiien A., Muhammad S. (2008) *Perceptions of course coordinators and course writers on developing Distance learning materials.* Turkish online journal of Distance Education vol. 9 article 6.
7. Johnson and Onwuegenbuzie (2004): Electronic learning: from audio tape to video disc. Hillsdale, New Jersey.
8. Kimani, G. N. Kara A. M. (2012). *Students Experiences and Perceptions of Master of Business Administration Program offered through Distance Education at Kenyatta University, Kenya* JCODE Vol.2 Issue 1
9. Mbrooki G. (2011). *Distance Learning: A product or a process?* Journal of Continuing Open and Distance education. Vol. Issue 2.
10. Nyerere and Jacklin K. A. (2012). *Delivering of Open, Distance and E-learning in Kenya.* Journal of Open University of Tanzania. Vol. 13 of 2012.
11. Nzuki, P.K (2012) The Relationship between the Perceived Quality Dimensions and Growth in Distance Education: The case of External degree program of the University of Nairobi, Kenya. Unpublished PhD thesis University of Nairobi.
12. Osei, K. C. (2010) *Perceptions of students towards use of Distance Learning. The case in an Executive Masters of Business Studies Program in Ghana.* Journal of D.L.
13. Republic of Kenya (2014) *Kenya Institute of Curriculum Development policy paper on Curriculum development and implementation,* Government printer, Nairobi.
14. Simonson, S, Smaldino, S. and Zvacek, S (2008) Teaching and learning at a distance. Foundations of distance education. 4th edition
15. Wood (2004): *Total Quality Management Strategy Plan for Distance Course Development* DEOSNEWS,13(2).