Learner Support Services and Retention of Distance Learners: The Case of Bachelor of Education Programmes of the University of Nairobi

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Abstract
Adult learners are regarded as a key and viable clientele for colleges and universities worldwide. Not only do they provide additional tuition revenue, but also bring the richness and variety of their knowledge and life experience to the classroom. Retaining and graduating students are paramount to the overall success of colleges and universities. Despite significant efforts on the part of many colleges and universities to increase student retention and graduation rates, these rates have remained relatively low. This study sought to establish how the provision of learner support services influences the retention of distance learners at the University of Nairobi. The study was grounded on the Vincent Tinto model of institutional departure, Psychological model of student departure by John Bean, Input-Environment-Outcome Model by Alexander Astin, and the Transactional Distance Theory. Quantitative data was collected through structured self-administered questionnaires while qualitative was collected through focus group discussions after research instruments were pilot tested for reliability through test-retest criterion and validity through content related method. The statistical tools of analysis for descriptive data were arithmetic mean and standard deviation while for inferential statistics were Pearson’s Product Moment Correlation (r), simple regression, multiple regressions and stepwise regression ($R^2$) and F-tests were used to test hypotheses in the study. Hypotheses test was done and results were as follows: $H_0$: Academic Support Services have no significant influence on the retention of distance learners at the University of Nairobi with $R^2=0.404$, was rejected and $H_1$ was accepted and concluded that Academic Support Services had a statistically significant influence on the retention of distance learners at the University of Nairobi.

Keywords: Academic Support Services, Adequate Tutoring, Feedback, Interaction with instructors, Learner Support Services, Mentoring, Module availability, Retention.

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Introduction
Academic support services is one of the key component of LSS. It refers to a wide variety of instructional methods and educational services that provided to learners in an effort to promote and enhance learning. In practice and specifically in DE academic support comprises a broad array of educational strategies that focus primarily on creating a conducive learning environment for the learners in order to ensure they meet learning standards and generally help them to succeed (Welch and Reed, 2005). Academic support is an important component in the retention effort. Studies such as that of Pascarella and Terenzini (2005), have demonstrated that this support service can play an important role in learner decision to stay in college and hence increase their chance of completing the course and graduating from college.

Academic support services are meant to promote academic opportunity and student success through collaboration and engagement of the campus community at large. Academic support ensures that learners are academically integrated and are also able to develop a plan to guide them in achieving their academic goals. Viewed in this context therefore academic support would some aspect of limited to face-to-face tutorials, mentorship, peer interactions, telephone discussions, group discussions, instructor support on request, seminars tailored to help learners in developing certain and learning contracts (Carlson, Downs, Repman, and Clark, 1998; Carnwell, 2000). Other researchers such as Simpson (2004) have maintained that academic support encompasses the overall course structure, explanation of concepts, provision of feedback, and improvement of relevant skills as well as consistent monitoring of learners.

Statement of the Problem
The retention of learners is regarded as one of the most important aspects in higher education. Whilst distance education has experienced tremendous growth over the years, it still suffers one fundamental weakness, the high
drop-out rate experienced by its students as compared with the drop-out rate of students in conventional education. Many colleges and universities have attempted to make appropriate changes in their programs in order to increase retention. Though the scholarly work of the last three decades has produced a great deal of research related to retention, the problem still remains intractable. At the same time, the funding needed to help increase student resources has been decreasing over the years. In fact, the environment for higher education has adjusted from one that has tremendous resources to the one that has diminishing resources for student support and retention. (Kiser and Hammer, 2015).

Retention literature has also tended to overwhelmingly focus on first years and omit the second years. For example studies such as those of (Austin and Osegura, 2005; Mortensen, 2005 and Novel-levitz, 2011) have observed that attrition rates drop by half for each year enrolled in college. In highly selective universities, this means that 8 percent of students leave after the first year and 4 percent after the second year and in less selective universities, these estimates are grater at 35 percent and 17 percent respectively. These numbers underscore the continued need for retention efforts in the second year. Indeed studies have shown that the retention needs of students in the second year are different from those of the first year (Ishitani, 2016). Low graduation rates consume immense institutional and individual resources with no return on those resources for society and family, while additionally failing to meet societal accountability expectations (Pullins, 2011). Institutions of higher learning also benefit from high retention rates as well. Tuition dependent institutions, for instance, cannot afford to lose students whom they otherwise could keep. It costs too much to recruit to let students just slip away. Some researchers have even observed that the tuition money from even a few students can mean the difference between keeping an important program and retaining a quality faculty member (Schub, 2005; Siegel, 2011). The importance of learner support services in overcoming this weakness cannot be overestimated. Several studies have demonstrated that learner support services can provide a vital resource for students experiencing difficulties, particularly in the first year and enhance their persistence (Boettcher, 2004; McCracken, 2004; Palloff and Pratt, 2003). These studies have pointed to the fact that there is a strong and positive correlation between learner support services and learner retention.

At the University of Nairobi the average attrition rate is about 15 percent for the Bachelor of education (Arts) and Bachelor of education (science) for distance learners in their first and second year. This average is lower than those usually reported in many of the studies that have investigated retention in higher education meaning that the university has put in place some measures that have resulted in better retention rates. Despite these gains, there still exist a gap in what organizations know and what they effectively do in terms of improving student progress. In terms of learners’ retention little empirical research has been devoted to the gains of learner support services as it contributes overall in helping learners persist especially during their first and second year of study. Apart from the studies linking learner support with academic success or recruitment (Bowa, 2008; Muchiri, 2012; Getuba, 2012; Gakuu, 2013) there has been relatively scant research specifically focused on how learner support affects student persistence within specific contexts, specifically at the University of Nairobi and also among the distance learning programs offered at the University. This study therefore intended to fill this gap by investigating the influence of Learner Support Services on the retention of distance learners at the University. Specifically the study intended to determine whether learner support services in the form of academic support, does assist distance learners’ persistence.

Specific Objective of the Study
To determine the influence of Academic Support Services on the retention of distance learners at the University of Nairobi.

Delimitations of the Study
This study focused on distance learners at the University of Nairobi in two programs offered under the ODeL mode and specifically those who are in their first two years of college. These two programs are the Bachelor of Education (Arts) and the Bachelor of Education (Science) mainly focusing on those Learners who use printed materials as their key learning resource and attend residential sessions for limited face-to-face contact with their tutors.

Research Methodology
The purpose of this study was to determine the influence of learner support services in the form of technological support services on the retention of distance learners at the University of Nairobi. Being a descriptive cross sectional research design, the ontological orientation of the study is that of the realist assumption. In descriptive cross sectional research design information is recorded as it is present in the population and the researcher does not manipulate variables (Mohamed and Oso, 2014). This study employed triangulation involving a cross-sectional survey design. The questionnaire was the main tool for collecting data. Focus group discussions (FGDs) were also conducted to provide information of learners’ perceptions, feelings, and attitudes towards their academic experiences as distance learners. For descriptive statistics means and standard deviations were computed for each
variable.

**Target Population**
The target respondents were made up of 1521 undergraduate students from two different programs from the academic years 2015/2016 and 2016/2017 who were first year and second years. These two programs are the Bachelor of Education (Arts) and Bachelor of Education (Science).

| Program                  | No. of Students/Gender |                  |                  |
|--------------------------|------------------------|------------------|------------------|
|                          | First Year             | Second Year      |                  |
|                          | Male | Female | Total | Male | Female | Total |
| B.Ed. Arts               |      |        |       |      |        |       |
| Nairobi                  | 215  | 126    | 341   | 76   | 67     | 143   |
| Kisumu                   | 24   | 34     | 58    | 34   | 32     | 66    |
| Kisii                    | 39   | 25     | 64    | 41   | 32     | 73    |
| Eldoret                  | 27   | 32     | 59    | 22   | 21     | 43    |
| Kakamega                 | 45   | 35     | 80    | 19   | 30     | 49    |
| Meru                     | 16   | 15     | 31    | 21   | 19     | 40    |
| B.Ed. (Science) Nairobi  | 138  | 58     | 196   | 187  | 91     | 278   |
| Total                    | 504  | 325    | 829   | 400  | 292    | 1521  |

Source (Records Office, SODL, ODeL Campus, U.O.N, 2017)

**Sample Size**
Using the Krejcie and Morgan (1970) formula, the sample size was computed as follows;

\[ s = \frac{x^2 NP (1 - P)}{d^2 (N - 1) + x^2 P(1 - P)} \]

Where; 
- \( s \) = required sample size.
- \( N \) = the population size (1521)
- \( P \) = the population proportion (assumed to be .50 since this would provide the maximum sample size)
- \( d \) = the degree of accuracy expressed as a proportion (.05)

\[ s = \frac{(3.84)(1521)(0.5)}{1460.16} \]

\[ n = \frac{3.8 + 0.96}{306.7563025\sim307} \]

\[ n = 3.807 \times 100 = 20.184 = 20\% \]

With the sample size determined, proportional allocations was adopted to distribute the respondents among the students’ categories aiming to have at least 20 percent representation from each strata as shown in Table 2.

**Questionnaire Return Rate**
Out of 309 questionnaires administered, 249 questionnaires were filled and returned which represented a response rate of 81 percent.
Table 3: Response rate and distribution of respondents

| Program Location     | Sample size | No of Respondents | Percentage |
|----------------------|-------------|-------------------|------------|
| B.Ed. Arts Nairobi   | 97          | 91                | 94%        |
| B.Ed. Arts Kisumu    | 26          | 20                | 77%        |
| B.Ed. Arts Kisii     | 28          | 12                | 43%        |
| B.Ed. Arts Eldoret   | 22          | 22                | 100%       |
| B.Ed. Arts Kakamega  | 26          | 18                | 69%        |
| B.Ed. Arts Meru      | 14          | 7                 | 50%        |
| B.Ed. Science        | 96          | 79                | 82%        |
| **Total**            | **309**     | **249**           | **81%**    |

Data Collection and Data Analysis

A research clearance letter was obtained from the University of Nairobi and later obtained a research permit from the National Commission for Science, Technology and Innovation. Seven research assistants were identified, recruited and trained for two days on the aspects of handling respondents and the ethical conduct of research. They were also taken through each item on the questionnaire so that they would be able handle any concerns that may arise from the respondents and also on how to conduct Focus Group Discussions (FGDs). A follow up time schedule for questionnaires was also agreed on with the research assistants to increase the questionnaire return rate. Qualitative data was collected from the seven regions through FGDs administered by the researcher himself. Each FGD was composed of between six and eight students picked randomly. These discussions run for between 60 to 90 minutes. Additional qualitative data was also gathered by the researcher through the observation schedule while conducting the FGDs and also upon a visit to some of the learning centres. Research assistants helped in collecting information from the other learning centres.

This research study collected both quantitative and qualitative and employed both descriptive and inferential data analysis methods in conformity with the pragmatism paradigm. All the data was keyed into the statistical package for social sciences (SPSS) version 24.0 specification. For descriptive statistics means and standard deviations were computed for each variable. In addition nine separate Analysis of Variance (one-way ANOVA) were conducted to answer the research questions.

Validity And Reliability Of Research Instruments

Validity is regarded to be the most critical criterion of sound measurement and indicates the degree of which an instrument measures what it purports to determine. Evidence of validity is provided by several sources. The main instrument for this study, the questionnaire, was evaluated for content, face and construct validity. The content validity of the questionnaire was determined by the literature review to identify the key indicators as well as by the judgments of my supervisors. Face validity of the instrument was determined through examination of the questionnaire by research experts from the University of Nairobi, especially those who have conducted research in DL and again with guidance from the researcher's supervisors, both who are experts in the field of distance learning. According to Mugenda (2011), construct validity is concerned with the extent to which a particular measure relates to other measures in a way that is consistent with theoretically derived hypothesis concerning the concept. The estimation of construct validity requires a researcher to establish theoretically derived hypothesis involving the concept under consideration. This has been ensured in this study since the hypotheses that have been developed for testing have been derived for the key indicators of the independent variables based on the study objectives which have been developed from literature review and are also related to the respective questionnaire items.

The Cronbach's Alpha is the most commonly used coefficient of measuring internal consistency of research instruments. The choice of this technique was informed by the fact that the technique does not require either splitting of a scale or the subjects re-taking the test for given construct. The scale gives positive results ranging from zero to one. The closer the coefficient is to one the greater the internal consistency of the items in the Likert scale and describes the extent to which all the items in the instrument measure the same concept or construct and hence it is connected to the inter-relatedness of the items within the instrument. A test score of 0.7 is prescribed as a cut off or benchmark for items to be included in the study (Cronbach and Richard, 2004). The results of the Cronbach's Alpha reliability coefficient was 0.817.

Findings of the Study

This study sought to determine the influence of Academic Support Services on the retention of distance learners at the University of Nairobi. Fifteen items were developed in the self-administered and respondents were requested to indicate the extent to which they agree with the statement and the results are presented in table 4.
grade she scored had she obtained prompt feedback on her assignment, since two of the assignment questions felt helpless in some cases when some of the questions given in the assignment were also part of the questions.

In item 1a respondents were requested to indicate if course instructors gave out an assignment on time. Study findings indicate that a majority of the learners 123 (49.4%) agreed while 105 (42.2%) strongly agreed with the statement. The mean score and the standard deviation for this item were 4.317 and 0.6954 respectively. This result implies that learners did strongly agreed that they were given their assignments on time and these assignments were mostly given during the residential sessions especially when the learners were being introduced to the course unit.

In item 1b respondents were requested to indicate if they received prompt feedback on their assignment from their course instructor on time. Study findings indicate that a majority of the learners 92 (36.9%) agreed while 58 (23.3%) strongly agreed with the statement. However, about 56 (22.5%) of the learners neither agreed nor disagreed with the statement and about 34 (13.7%) disagreed with the statement. The mean score and the standard deviation for this item were 3.627 and 1.0934 respectively. Even though this result does imply that learners agreed that they did receive prompt feedback on their assignments from their instructors, the results from the FGDs varied among the respondents. One respondent who was in her second year male student who was in the science programme said that:

“I have submitted several assignments on time in all my units but always get my assignments after the semester has ended and hence these assignments never help me in my revision for the final examination. She said that she felt helpless in some cases when some of the questions given in the assignment were also part of the questions included in the final examination. In one paper she said she probably would have scored a better grade than the grade she scored had she obtained prompt feedback on her assignment, since two of the assignment questions were included in the final examination. In some cases I never even get my assignments back since most of the instructors do not bring the marked assignments to class during revision sessions, though I do eventually get my assignments back but after the semester has ended from my regional centre.”

However, this was not the case with another second year male student who was in the science programme who said that:

“So far I have received all my assignments and these assignments were indeed returned on time by the instructors.
He felt unlike her Arts counterpart probably it was the smallness of the class that allowed the instructor to quickly mark and return their assignments, given that the science program had fewer students than the Arts program since on average a science program would have 20 to 30 students while typical Arts program would have more than 100 students.”

The sentiments from the FGDs were that since they had taken time to write these assignments, it was only fair that they receive some feedback on their assignments. They were of the opinion that prompt feedback on their assignments would enable them to correct some of the mistakes they had made and hence help in their revision. The study findings compare well with those of other studies such as (Fodzar, Kumar and Kannan, 2006; and Fouche, 2006) who agreed that since distance learners have put in a lot effort in their assignments, instructors had a moral duty to give them feedback on their performance. Lamor (2009) believes that providing timely feedback is the first critical strategy in reducing the feeling of isolation that leads to lower retention rates for online students.

In items 1c and 1d respondents were requested to indicate if the course instructor provided the respondents with positive feedback on their assignment and if they regard the comments on their returned assignments as dialogue rather than a directive from the course instructor. Study findings on the two items indicate that a majority of the learners 110 (44.2%) agreed while 56 (22.5%) strongly agreed with the statement that instructors did provide positive feedback on their assignments. The mean score and the standard deviation for this item were 3.727 and 0.9988 respectively. This result shows that the respondents did agree that they received positive feedback from their assignments. On item 13d 146 (58.6%) agreed while 53 (21.3) strongly agreed that they regard comments on their returned assignments as dialogue rather than a directive from the course tutor. The mean score and the standard deviation for this item were 3.928 and 0.8393 respectively, indicating that the respondents were in agreement with the statement. These findings agree with those of Goleman (1995), who emphasizes that feedback should be specific and explicitly provided to ensure that the student understands how and why they did not do well in an assignment.

These finding were also confirmed by the FGDs, where one of the respondents who was in their first year said; “I received my assignment but the instructor had not put any comments yet the grade on my assignment was seven out of fifteen. I tried to compare my answer to that of my colleagues but all seemed to have the same predicament, marks awarded but no comments given. I had discussed my answer among the members of my study group and all of us had more or less presented our assignments with the same points. Unfortunately all my group members got different marks ranging from 5/15 to 12/15 and hence we did not know what to do and felt confused and discouraged since we thought we had done some good research on our assignment. When we approached our course instructor for guidance, she was dismissive and told us that it was not possible to put a comment for every student especially given the fact that she would have to do that for more than 200 students. Hence, we were all left confused and did not get to know whose answer we should adopt as the correct one if the same question were to appear in the final examination. I also receive most of my term papers after the examinations therefore, even if the instructor had made any comments…… which by the way I have never seen, then it does not help in my examination preparations.”

This result is in agreement with that of Kasprzak (2005), who observed that whenever immediate feedback after an examination cannot be provided, effort should be made to score and return the test the soonest possible before the student embarks on subsequent lessons. Feedback given at the end of the course may be valuable in providing long term guidance, but does not help the student’s grade or the quality of the work in the current course.

In item 1e the respondents were asked they had easy access to resources to complete their assignments. Majority 104 (41.8%) agreed while 47 (18.9%) strongly agreed with the statement. The mean score and the standard deviation for this item were 3.522 and 1.1397 respectively. FGDs sentiments supported this result. One of the respondents who was in second year said:

“I attend my residential sessions in Nairobi and my regional centre is Machakos. At the main campus, the library has most of the reference materials that our instructors recommend and we also have access to online resources, hence I have no challenge in accessing reference materials.”

In item 1f respondents were requested to indicate if they were allowed to evaluate their instructors at the end of the course. Study findings indicate that a majority of the learners 104 (41.8%) agreed while 74 (29.7%) strongly agreed with the statement. However, about 43 (17.3%) of the learners neither agreed nor disagreed with the statement and about 17 (6.8%) disagreed with the statement. The mean score and the standard deviation for this item were 3.855 and 1.0603 respectively. This result does indicate that learners do get an opportunity to evaluate their instructors at the end of the course and this allows them to give feedback on how they felt about the course and the instructor. From the FGDs however, respondents gave strong opinions as to the value of these evaluations, especially for those learners who were in their second year of study: One respondent whose opinion majority agreed with had this to say; “In first year we had lectures who missed lessons and were rude when asked questions in class. We would report to the administration but no action would be taken, and we would be advised to capture our sentiments in the lecturer evaluation forms. We thought this was our opportunity to express how we truly felt about those lectures who students disproved. Despite rating some of the lectures poorly, we would still see them
lecturing us and those who are behind us, and eventually some of us stopped filling in the evaluations since no one seemed to be acting on them.”

In item 1g respondents were requested to indicate if they were able to know their results at the end of each academic year. Study findings indicate that a majority of the learners 78 (31.3%) agreed while 64 (25.7%) strongly agreed with the statement. However, about 49 (17.9%) of the learners neither agreed nor disagreed with the statement and about 26 (10.4%) disagreed with the statement. The mean score and the standard deviation for this item were 3.466 and 1.3228 respectively. This result does indicate that learners were in agreement that they do get their results at the end of the academic year. This item is closely linked with items 13h and 13i. Item 13h requested the respondents to indicate if they have received results for all their units, for which they have sat for examinations. Results indicate that 61 (24.5%) agreed but then a similar number 61 (24.5%) disagreed with the statement, 53 (21.3%) strongly agreed while 37 (14.9%) respondents neither agreed nor disagreed with the statement and about 37 (14.9%) strongly disagreed with the statement. This diverse opinions can be confirmed by the mean and standard deviation which were 3.129 and 1.3882, indicating that respondents generally neither agreed nor disagreed with the statement.

Item 1i requested the respondents to indicate whether examination results are always received on time. Study findings indicate that 64 (25.7%) agreed but then a similar number 54 (21.7%) disagreed with the statement, 45 (18.1%) strongly agreed while 43 (17.3%) respondents neither agreed nor disagreed with the statement and about 43 (17.3%) strongly disagreed with the statement. Again this diverse opinions can be confirmed by the mean and standard deviation which were 3.056 and 1.3755, indicating that respondents generally neither agreed nor disagreed with the statement. More importantly the two items 13h and 13i had the two smallest and also largest STD of all the items captured under Academic support services. From the FGDs one of the respondents, a female student respondent in her second said:

“I have done all my examination, cats and term papers but more than half of first year’s results have not reflected in my student porthole. Every time I make a follower up I am told that the instructors have yet to submit the marks to the examination office. Whenever I inquire from the instructor, I am told that s/he marked and surrender the marks to the examination office. I honestly find this frustrating since I have been told to write a letter so that issue can be resolved but nothing has been resolved. I am worried since I have heard from our colleagues in third and fourth year how frustrating the whole process of searching for missing marks can be. I don’t understand why I am told to call my lecturer so that s/he can submit my marks, and even when you call them they first answer your phone, promise to do something about the missing mark. However the problem remains unresolved and when you try calling them again they normally stop answering you phone or text messages”

Another respondent however had a different opinion, a second year male student said that:

“I know that I have a few missing marks, but it is due to the fact that I had to take a break for one semester and hence when I reported back I had to join a different cohort from the one I joined with. Therefore, along the line I have done examinations with a different cohort, the reason that I have been given for my missing marks. However, I do feel that it has taken too long for them to reconcile my marks since it has been more than six months since I sat for my part two examinations. I also feel that some of our instructors are not very helpful when it comes to tracing missing marks. When you call them, some are very rude, some do not response to phone calls or SMS and this is very frustrating.”

These findings agreed with those of Osegura and Rhee (2009) who established that learners’ positive contact with faculty staff has a significant influence on retention. Similar findings were established by Kelly-hall (2010) whose revealed evidence that supports Austin’s student involvement theory and Tintos student retention model. The study demonstrated that LSS such in the form of academic support strongly impacted on learner involvement because it helped them to be more focused, were able to attain their academic goals and enhanced their willingness to stay in campus.

Item 1j requested the respondents to indicate if they felt that the Face-to-face tutorials they received were adequate. Study findings indicate that majority 98 (39.4%) agreed while 58 (23.3%) strongly agreed with the statement. Results from the mean and standard deviation were 3.582 and 1.1957 respectively, indicating that respondents generally agreed that the face to face tutorial they received were adequate. Item 13k requested the respondents to indicate if content and teaching approach support learners in achieving the objectives of the course unit. Results indicate that majority 126 (50.6%) agreed while 75 (30.1%) strongly agreed with the statement. Results from the mean and standard deviation were 3.976 and 0.9793 respectively, indicating that respondents generally agreed with the statement. However the quality of teaching was a theme that developed during the interviews. A few of the students mentioned that some of their teachers were not very good in terms of content presentation and at times they seemed to be in a hurry to complete the session and leave. One second year male student in a regional learning centre stated:

“I sometimes get the feeling that some of our lecturers’ don’t understand very well the content they are delivering. They never give us good answers when we ask questions and sometimes we have to read on our own since they do not show up or when they do, they never cover the required hours.”
Based on the responses of the students interviewed it appeared that learners were concerned about the quality of some of their lecturers.

Item 1I requested the respondents to indicate if they felt that their study module was up to date and relevant to the course. Study findings indicate that majority 126 (50.6%) agreed while 75 (30.1%) strongly agreed with the statement. Results from the mean and standard deviation were 3.976 and 0.9793 respectively, indicating that respondents generally agreed with the statement. This item was important given the fact that the study module is regarded to be central to the ODL mode of delivery. It is supposed to be the key source of study material for the learner especially during their home study. More importantly it meant that the two programs were providing the learners with quality study materials that the learners could rely on during their home study.

Item 1m requested the respondents to indicate if they were provided with all study modules necessary for the degree program. Study findings indicate that majority 89 (35.7%) agreed while 56 (22.5%) strongly agreed with the statement, but at the same time 46 (18.5%) disagreed that study modules were available for all their courses and 34 (13.7%) strongly disagreed with the statement. Results from the mean and standard deviation were 3.349 and 1.3687 respectively, indicating that respondents generally agreed with the statement that the university has so far availed them with all the study modules for the courses they have registered for. However, those who disagreed or strongly disagreed with the statement were about 80 (32.2%), and various reasons were given during FGDs.

One respondent as second year female student had this to share:

“I do admit that I did receive all my study modules when I was in first year since I had paid all the required fee and registered for the units but I have only received two in my second year. I have not yet paid for their entire semester fee and hence I have yet to be issued with all my study modules. During the home study period I will rely on my friends who have paid and being issued with all the study modules. The university only gives the modules to those who have paid fee for that semester and since I have only paid for two units, I have only been given the two modules and I plan to complete my fee before the next residential session so that I can secure all my modules.”

Another respondent in Meru, a second year female student shared:

“I have paid all my tuition fee but I have only received five of the eight modules. I have was told that they others were not available since they were out of stock and are being printed. I am frustrated since the administration had promised that all our study modules would be availed if we paid our tuition fee. If I had known, I would only have paid for the five units available. My fear is that I am missing two units in History and one in Kiswahili, and even some of our colleagues who are in third year say they never got the history modules despite being promised they would receive them.”

Items 1n and 1o had to do with the interactions of the learners with their instructors. Item 13n requested the respondents to indicate if students were able to freely interact with course instructors. Study findings indicate that majority 111 (44.6%) agreed while 75 (30.1%) strongly agreed with the statement. Results from the mean and standard deviation were 3.892 and 1.0589 respectively, indicating that respondents generally agreed with the statement that students were able to freely interact with course instructors. From the FGDs opinion was divided on the nature of this interaction. One of the respondents, a female student respondent in her second said:

“We frequently interact with our lecturers and most of them guide us on how to go about reading the module, how to answer questions……….. they also provide us with additional notes either in soft or hardcopy, and this is very helpful. However some of our lectures rarely come for lessons, and eventually when they show have in such a hurry that we hardly get an opportunity to interact with them.”

However one female student also in her second year said:

“We have lectures who never show up for lessons until the revision week, and when they come they only summaries the study module and don’t have time to answer questions or even interact we the students, hence we have had to read on our own in some of the units, and since we have not received results, we don’t know how we performed. We have complained but no action has been taken against the lecturer”

These findings agreed with many studies that confirm that LSS that connects the student to the institution, and faculty-student contact can have a significant effect on student, motivation, involvement, and retention. (Chickering and Gamson, 1987; Noel, Levitz, Saluri, and Associates, 1985; Pagliari and Frost, 1991; Pascarella and Terenzini, 2005; Tinto, 1993; Glennen, 1995; as cited in Pargett, 2011 and Yunjin and Lee, 2016).

Item 13o on the other hand wanted to establish if course instructors were always available for consultations when the students required some assistance with a problem they had encounter in their course or an area in the module that needed some clarification. Results indicate that majority 92 (36.9%) agreed while 67 (29.9%) strongly agreed with 46 (18.5%) either agreed or disagreed with the statement. Results from the mean and standard deviation were 3.663 and 1.1806 respectively, indicating that respondents generally agreed with the statement that course instructors were readily available for consultations. The finding agrees with that of Svanum and Bigatti (2009) who observed that tutor encouragement of student, course engagement and programs designed to enhance course engagement would likely have broad and favorable consequences, including enhanced graduation rates and potentially increased retention rates as these are likely influenced by the degree of student success.

Correlation analysis using Pearson’s product moment technique was carried out to determine the relationship
between Academic Support Services and Retention of Distance Learners. Results of the correlation are presented in Table 5.

Table 5: Correlation between Academic Support Services and Retention

|                  | Learner RT | Academic Support |
|------------------|------------|------------------|
| Learner RT       | Pearson Correlation | 1 | .636** |
|                  | Sig. (2-tailed) |                | .000 |
|                  | N           | 249             | 249 |
| Academic SS      | Pearson Correlation | .636** | 1 |
|                  | Sig. (2-tailed) | .000           |    |
|                  | N           | 249             | 249 |

** Correlation is significant at the 0.01 level of significance (2-tailed)

Results from table 5 reveal that there is a significant positive relationship between Academic Support Services and Retention of Distance Learners ($r = 0.636$, $p$-value $= 0.000$). This implies that there is a strong and positive association between Academic Support Services and Retention of Distance Learners which is significant. The following hypothesis was tested using multiple regression analysis in order to satisfy the objective.

H$_0$: Academic Support Services has no significant influence on the retention of distance learners at the University of Nairobi.

H$_1$: Academic Support Services has a significant influence on the retention of distance learners at the University of Nairobi.

Null hypothesis was tested using the following multiple regression equation in order to determine the beta coefficients of all the indicators:

$$Z = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + u$$

Where $Z = $ Retention of distance learners

- $X_1 =$ Module availability
- $X_2 =$ Adequate Tutoring
- $X_3 =$ Mentoring
- $X_4 =$ Feedback
- $X_5 =$ Interaction with instructors

$u =$ random error

Results in table 6 show that $r = 0.636$, implying a positive and strong correlation between Academic Support Services and retention of distance learners at the University of Nairobi. The $R^2$ was 0.404 and this indicates how much of the total variation in the dependent variable can be explained by the independent variable. In this case Academic Support services explained 40.4% of the variability in learners’ retention with 59.6% of the variation in learners’ retention being explained by other factors. A key assumption made about regression analysis is that the observation are independent. If there is no autocorrelation then the Durbin-Watson statistic should be between 1.5 and 2.5 and in our case it was 1.989. Empirical findings from test of significance at the 5 percent level of significance or simply 0.05 indicated that Module availability was ($p = 0.000$); Adequate Tutoring ($p = 0.000$); Mentoring ($p=0.003$), Feedback ($p=0.001$) and Interaction with instructors ($p=0.001$); and all of the indicators were statistically significant. The $\beta$ coefficient of Module availability is 0.539 that of Adequate Tutoring is 0.211, Mentoring 0.118, Feedback is 0.233 and Interaction with instructors is 0.293.
Table 6: Multiple Regression Analysis Results for Influence of Academic Support Services on retention of distance learners at the University of Nairobi

### a. Model Summary

| Model | R      | R Square | Adjusted R² | S.E of Estimate | Durbin-Watson |
|-------|--------|----------|-------------|-----------------|---------------|
| 1     | .636a  | .404     | .396        | .42240          | 1.989         |

*a. Predictors: (Constant), AcademSS_X4 Feedback, AcademSS_X3 Mentoring, AcademSS_X1 Module availability, AcademSS_X2 Adequate Tutoring, AcademSS_X5 Inter. with instructors*

### b. ANOVA

| Model | Sum of Squares | Df | Mean Square | F       | Sig. |
|-------|----------------|----|-------------|---------|------|
| 1     | Regression     | 4  | 4.391       | 64.609  | .000b|
|       | Residual       | 244| .178        |         |      |
|       | Total          | 248|             |         |      |

*a. Dependent Variable: Learner RT*

*b. Predictors: (Constant), AcademSS_X4 Feedback, AcademSS_X3 Mentoring, AcademSS_X1 Module availability, AcademSS_X2 Adequate Tutoring, AcademSS_X5 Inter. with instructors*

### c. Coefficients

| Model | Unstandardized Coefficients | Standardized Coefficients | t - Statistic | Sig. |
|-------|-----------------------------|---------------------------|---------------|------|
|       | Beta | Std. Error | Beta | Std. Error |               |               |
| 1     | (Constant)                  | 3.104 | .136 | 22.886 | .000 | 3.104 |
|       | AcademSS_X1 Module availability | .339 | .059 | .539 | 5.752 | .000 | .339 |
|       | AcademSS_X2 Adequate Tutoring | .154 | .046 | .211 | 4.306 | .001 | .154 |
|       | AcademSS_X3 Mentoring       | .097 | .040 | .118 | 2.236 | .003 | .097 |
|       | AcademSS_X4 Feedback        | .163 | .042 | .233 | 1.355 | .001 | .163 |
|       | AcademSS_X5 Inter. with instructors | .194 | .049 | .293 | 2.315 | .001 | .194 |

*a. Dependent Variable: Learner RT*

The β values tells us that one unit change in module availability contributes to 53.9% change in learner retention; one unit change in Adequate Tutoring contributes to 21.1% change in learner retention; one unit change in Mentoring contributes to 11.2% in learner retention, one unit change in Feedback contributes to 23.3% change in learner retention and Interactions with instructors contributes to 29.3% change in learner retention. The ANOVA results indicated that the regression model was significant at F = 64.609 with p value = 0.000 which is lower than the cut off p value of 0.05. This means that the null hypothesis was rejected implying that the Academic support services has a significant effect on learners retention. The coefficients provide the necessary information to predict Learners Retention from Academic Support Services. From the statistical findings we can now specify the following equation:

\[ Z = 3.104 + 0.539 X_1 + 0.211 X_2 + 0.118 X_3 + 0.233 X_4 + 0.293 X_5 \]

The findings from this regression model were confirmed by the FGDs where learners felt that having the study module was very important to them given that it was what they relied on during their home study period. Adequate tutoring, mentoring and feedback were also important in influencing satisfaction among learners and determining their retention. The findings demonstrate that the encouragement of students to participate actively in the course discussion by instructors, instructor providing feedback on students work through comments, students being able to interact with instructors during course discussions and informing students about their progress periodically as metric for student-instructor interaction positively influence students’ satisfaction and retention at the University of Nairobi.

### Conclusion and Recommendations

The five indicators for Academic support were Module availability, Adequate Tutoring, Mentoring, Feedback and Interaction with instructor and all were found to be statistically significant. The coefficients provided the necessary information to predict Learners Retention from Academic Support Services. Descriptive analysis showed that majority of the the respondents generally agreed that Academic Support Services were important in influencing learner retention. Inferential statistics indicated that out of the five indicators for Academic support, Module
availability was found to have a higher influence, followed by Interaction with instructors, then prompt feedback, Adequate Tutoring and finally Mentoring. This is not surprising given that learners regard the study module as their key text and also tutor during their home study and hence valued it highly. If this module was not availed, it meant additional photocopying expenses for them. Interaction with instructors was also valued highly by the learners since they would use the opportunity to ask questions about their term paper grades, get answers to questions from past papers, get clarifications on any grey areas in their modules that are not clear and also what areas they need to focus more from their study module. Hence this study concludes that Academic Support Services had a statistically significant influence on the retention of distance learners at the UON.

Study findings indicated the need for program managers to ensure adequate academic support services were offered to the learners so as to ensure quality of the programme. It was found that a well-organized study programme and the competence of teaching staff improve student persistence Dissatisfaction with a training programme is often associated with the low quality of the programme and its teaching staff. Learners were particularly concerned about lectures missing lessons, rude tutors, lecturer evaluation that were not result oriented from the learners perspective, not been given prompt feedback concerning their assignments, not enough comments on marked assignments (students would like to see more comments by the tutor who marks their assignments, delayed release of results, missing marks and unavailability of some of the study modules. Managers of the programmes need to therefore address all these challenges in order to strength academic support services at the university given that the study empirically established that academic support services do have a significant influence on learner retention. In order to standardize teaching across all the learning centres, managers of all distance learning programs at the university must as a matter of priority offer training to all full time and part time on pedagogy, andragogy and mentorship to enhance the quality of teaching amongst the lecturers.

This study used the mixed mode approach, relying more descriptive cross sectional survey, carried out using the questionnaire; correlational research design and qualitative analysis of data collected through FGDs. An in-depth analysis of the independent and moderating variables was carried out using descriptive analysis through the computation of means and standard deviations. Composite means and composite standard deviations were also computed which helped to enrich the analysis. Correlation analysis was carried out to establish the strength of the relationships between the variables. Test of hypothesis was carried out using both multiple regression analysis and stepwise regression to check for the significance of the moderating influence of both learner characteristics and hidden costs. Qualitative data analysis was undertaken through FGDs based on the study variables. This complementarity between quantitative and qualitative approaches strengthened the explanatory power of the study findings by allowing researchers to compare results obtained from both descriptive statistics and inferential statistics in order to provide a detailed interpretation. This study therefore highly recommends the same approach be adapted in any future research on the same area.

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