

Lecturer-Student Ratio And Ict Related Factors Influencing The Provision Of Quality Education In Public Universities In Kenya: A Case Of Faculty Of Arts, University Of Nairobi, Kenya.

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Abstract

Higher education plays a key role in the training of qualified individuals who have the capacity of implementing new ideas, technologies and to use innovative methods to establish more efficient enterprises and institutions and thus allocate resources more effectively to enhance quality education. University of Nairobi has been ranked through webometrics ranking of world universities 2016 as 6th out of 1448 universities in Africa and one of the main criteria used is webometric that to extend reflects the quality of education offered at the university. The study analyzed institutional factors influencing provision of quality education in public universities in Kenya: case of Faculty of Arts, University of Nairobi, Kenya. The objectives of the study were to determine the extent to which student-lecture ratio influence the provision of quality education in public Universities in Kenya and to examine how internet access level influence provision of quality education in public universities in Kenya. The indicators of quality in Universities were pass rates, number of PhD's and Masters students admitted and graduating, ongoing and completed research, seminars organized and attended as well as research and publication. The research employed descriptive survey design and was built on Human Capital Theory. The target population for this study was 8774 that included,7502 undergraduate students, 1230 master of Arts students, 41 PhD students and the Dean Faculty of Arts. The sample consisted 4 PhD student, 123 Masters Students and 750 Bachelors students and 76.4%. Simple random sampling and purposive sampling used to get respondents. A reliability co-efficient of 0.8 was realized. Questionnaires, interview and observation schedules were used for data collection. The study determined that student-lecture ratio influence the provision of quality education in public Universities in in Kenya. On the first objective the study concluded that the availability of lecturers for individualized learning, attendance and course content coverage affect the provision of quality education. It also concluded that internet connectivity also influences quality of education in the Faculty of Arts, University of Nairobi. As a result of this the study it recommends that the Faculty of Arts ought to add more teaching staff to increase the lecturer student ratio as well as enhanced internet access levels so as to ensure that the students get an individualized and personalized tutorial.

Key Words: Higher Education, quality, public Universities, Lecturer-student ratio, internet access

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I. Introduction

Background to the study

Education is the basis to fostering efforts to enhance productivity, competitive economic growth, innovation and performance across social and economic sectors. As a capital good, education is used to develop human resources that is the pillar to production of other goods and services resulting into social and economic transformation of the society (Olaniyan & Okemakinde, 2008). In particular, higher education plays a key role in training qualified individuals who are capable of implementing new technologies and using innovative methods to establish more efficient enterprises and institutions and thus allocate resources more effectively (World Bank, 2010).

Bloom, Canning, and Chan (2006), established that University education stock would raise the long-run steady-state by generating a total increase of 0.63 percentage points in Africa's GDP in the first

year. Montenegro and Patrinos (2013) cited in USAID (2014) on rates of both private and society returns to schooling around the world shows that the returns are highest globally at the tertiary level with a world average of 16.8 percent, while primary and secondary returns are at 10.3 percent and 6.9 percent, respectively. Further, it is important to note that, India's leap onto the world economic stage has been attributed to its decade-long successful effort to provided highly-quality.

Technically oriented tertiary and university education to a significant number of its citizens (Bloom, Canning and Chan, 2006). The ability of education to play this role rests on the quality and quantity dimensions of an education system (Olaniyan & Okemakinde, 2008) However, rapid expansion and change in university education system, through adoption and application of different modes of learning presents both opportunities and risks in ensuring quality education in Universities (Chacha, 2005). It has therefore become necessary given huge public and private investment in University education, to urgently evaluate how effectively this investment is being utilized by examining the quality of educational infrastructure, the cadre of qualified tutors, the quality of teaching and learning resources and other resources in place (UNESCO, 2005).

The word "quality" has been derived from the Latin word *qualis*, meaning, "what kind of". With a wide variety of meanings and connotations attached to it, quality is a difficult and elusive term to define, having thus been referred to as a "slippery concept" (Pfeffer and Coote, 1991 cited in NAAC & COL, 2006). As such it has been defined with different perspectives and orientations, according to the person, the measures applied and the context within which it is considered. Chua (2004) defines quality in the context of education as the Input–Process–Output (IPO) framework in which 'Input' refers to the entry requirements, 'Process' refers to the teaching and learning process, and 'Output' refers to the in this case refers to the undergraduate pass rates, seminars organized and attended, ongoing and completed research work as well as publications done, number of PhD and masters students enrolled and graduated.

Inputs such as teaching staff are necessary for completeness of the definition. The University of Nairobi has a student population of 68,000 and 10,000 among these are from the faculty of arts and serviced by a staff of 254 fulltime and 180 part-time lecturers whose ranks range from 17 professors, 37 associate professors, 44 seniors lecturers, 105 lecturers, 12 assistant lecturers, 180-part time lecturers, 31 tutorials fellows, 7 visiting lecturers and 1 graduate assistant. The University through its strategic plan is committed on recruiting academic staff by reviewing and implementing policy on doctoral training, providing modern and adequate equipment for teaching and learning, develop libraries to improve learning and quality of research through information and communication Technology by establishing and equipping computer laboratories for students and staff. These efforts are aimed at ensuring quality of the programmes and graduates produced by the university (arts.uonbi.ac.ke). Each year, the faculty, through Kenya Universities and College Placement Services (KUCCPS) admits nearly 900 government-sponsored students to its regular programs and about 1,200 students to self-sponsored the fourteen departments.

Statement of the problem

Literature of funding University education in Kenya confirms that public funding is inadequate (Republic of Kenya, 2012). This is likely to affect the input-output relationships and reduce the quality of University output in terms of teaching, research and provision of services critical to the economy. The Government of Kenya in its capacity has ensured that the quality of education in public Universities in Kenya is fully achieved (Republic of Kenya, 2012). To effect, the government has hired and paid salaries for qualified lecturers to teach in the public universities in addition, the establishment of Commission for University Education (CUE) (formerly CHE in 1985 by an act of parliament), University Act CAP 210B as a body corporate to make better provision for the advancement and quality assurance of university education in Kenya for connected purposes (CHE, 2012). CUE is mandated to accredit, regulate, inspect, promote, set standards and assure quality and relevance of university programs. (University Act, 2012). Despite these efforts by the Kenyan government, there has been inadequate teaching staff in public as well as internet connectivity deficiencies in universities hence compromising the quality of education.

Objective of the study

The study targeted to achieving the following objective:

- i. To assess how lecturer-student ratio influence provision of quality education in public universities in Kenya.
- ii) To examine how internet access levels, influence provision of quality education in public universities in Kenya.

Research question

The following question guided the study:

- i) How does lecturer-student ratio influence provision of quality education in public universities in Kenya?
- ii) To what extent does internet access influence provision of quality education in public universities in Kenya?

Significance of the study

The findings of this study ought to help to identify gaps help the Faculty of arts management and administrators to identify the extent of institutional gaps. Policy makers (at institutional level and ministry level) and among stakeholders (such as Commission for University Education) ought to use the findings to re-examine the existing policies on provision of quality university education in relation to educational inputs. This seeks to pinpoint areas that may need the attention of University council, Senate as well as future researchers in order to ensure production of quality, employable graduates.

Limitations of the study

The respondents' availability particularly academic staff due to their busy schedules were challenge. However, the researcher sought appointment in advance from the academic staff and collect data within campus session in order to access students more particularly masters and PhD students. Similarly, the fear to provide information especially on inadequacies of capacities which seems like discrediting the institution will be handled by researcher assuring confidentiality and anonymity of the respondents and that data is to be used for academic purposes only.

Delimitation of the study

The study was confined to the experiences of Faculty of Arts, University of Nairobi. Only the Dean-Faculty of arts, PhD, Masters and Bachelors of Arts students participated in the study. Similarly, the study focused on adequacy of academic staff and Internet connectivity learning resources and physical facilities. Even though there were other institutional factors influencing quality at the Faculty of Arts, they were not explicitly examined by the study.

II. Literature Review

Concept of quality in education in public Universities

The word "quality" has been derived from the Latin word *qualis*, meaning, "what kind of". With a wide variety of meanings and connotations attached to it, quality is a difficult and elusive term to define, having thus been referred to as a "slippery concept" (Pfeffer & Coote, 1991 cited in NAAC & COL, 2006). As such it has been defined with different perspectives and orientations, according to the person, the measures applied and the context within which it is considered.

Chua (2004) defines quality in the context of education as the Input-Process-Output (IPO) framework in which 'Input' refers to the entry requirements, „Process" refers to the teaching and learning process, and 'Output' refers to the employability and academic standings. Inputs such as teaching staff, physical facilities and teaching-learning resource including ICT facilities are necessary for completeness of the definition. Whereas concept of quality remains amorphous and contextual, in higher education, it has widely been used to mean educational system (input-process-output) being such that it ensures students achieve their goals and thereby satisfies the needs of the society and help in national development (NAAC & COL, 2006). Chitty's three concepts of schooling summarize quality education as schooling for human fulfillment, schooling as preparation for the world of work and schooling for social progress or change.

Influence of lecturer student ratio on quality of education

Many administrators believe that the lower the ratio between students and lecturer/faculty, the greater the learning and personal development that will occur. In United Kingdom (UK), lecturer student ratio has been used for over half a century to benchmark, or as a broad guideline in terms of input quality when accrediting university courses. The increase in faculty student ratio indicates a sign of increasing quality (Roy & Jamison, 1976). U.S. News surveyed nearly 1,800 colleges and universities for 2013 survey of undergraduate programs which established that at the 19 National Liberal Arts Colleges with the lowest student- to-faculty ratios in fall of 2012, there was an average 7.6 students to every faculty member. This allowed small classes for student interaction with professors and fellow students making it frustratingly difficult to avoid class discussions and skip class unnoticed.

Internet accessibility on provision of quality education

Since the Internet revolution, more focus in relation to ICT is on the impact of online activities: use of Internet, use of educative online platforms, digital devices, use of blogs and wikis among others. Chifwepa (2003) discovered a high use of Internet by the staff of the University of Zambia where 35 out of 37

staff made use of Internet. Their major motivation for such use is convenience (82.91%); usefulness (80.05%); free access to information and software (71.4%); and ease of use (68.6%).

Jagdor (2004) through his research on universities in Nigeria established that 45.2% of postgraduate students access the Internet at the cybercafé in the university where only 8.2% use the library Internet facilities. While Bao (1998) found out that only 10% of his respondents at the Seton Hall University do not use the Internet, 40.2 percent of students and researchers use it on daily basis, 38.3% on weekly basis and 10.7 percent on monthly basis. World Bank sponsored African Tertiary Institutions Connectivity survey (ATICS, 2004) established that Internet connectivity in universities in Africa was too little, too expensive and poorly managed

III. Methodology

This study applied descriptive survey design. The study aimed at collecting information from respondents on their opinion in relation to institutional based factors on the provision of quality education in public universities in Kenya. Therefore, descriptive survey design was appropriate the target population constituted of 8772 students in the categories of: PhD candidates 41, Master of Arts 1,230, Bachelor of Arts, 7502 and the dean Faculty of Arts.

Therefore, a total of 8774 respondents form target population (FoA annual report, 2014) As such 4 PhD candidates, 123 master's students and 750 bachelor's students formed student sample and was randomly selected. Dean Faculty of Arts was purposively picked as head of the Faculty and was deemed to be in possession of basic information to be sort by the researcher. The researcher used interview schedule, structured questionnaires and observation schedule to collect data from administrators and students. Descriptive data are typically collected through interviews, questionnaires and observations.

The researcher sought instrument validation from supervisors and professionals within the department. Responses in the questionnaires were tabulated, coded and processed by use of a computer Statistical package on social science (SPSS) for data analysis. The responses from the open-ended questions were listed then reported by descriptive narrative. Data was then presented by use of tables, pie-charts and bar graphs where appropriate and finally making inference about the whole population.

IV. Discussion And Findings

Lecturer-student ratio

In understanding the position of the objectives of this study, the study ventured to find out the lecturer-student ratio in the Faculty of Arts, University of Nairobi. The analysis was done individually for Bachelors, Masters and PhD students.

Lecturers availability for individualized assistance and tutorials

The study focused on finding out the level of availability of lecturers for individualized assistance and tutorials for students as a means of enhance quality of the learning process for Bachelors students. Figure 4.1 shows lecturer's availability for individualized assistance for Bachelors students.

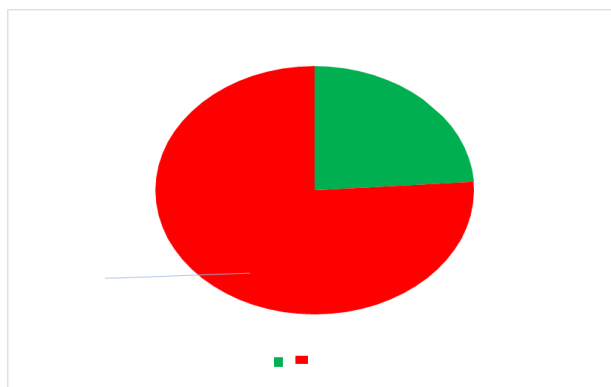


Figure 4.1 Lecturer availability for individualized assistance for Bachelors students

From a total of 573 students, 137 students admitted that lecturers were adequately available for individualized assistance. This represents 24 percent of the cases while a whopping 436 students (76%) cited that lecturers were not available for individualized assistance. This was informed by the fact that the large number of students enrolled in bachelors degree programmes limits the level of individualized assistance by lectures. Roy & Jamison, 1976 indicates that this is a sign of decreasing quality if lecturers are not available for individualized assistance for bachelors degree students.

Lecturer availability for masters students

The study sought to know from masters degree students if lecturers were available for individualized assistance. Figure 4.2 shows lecturers availability for individualized assistance for masters students.

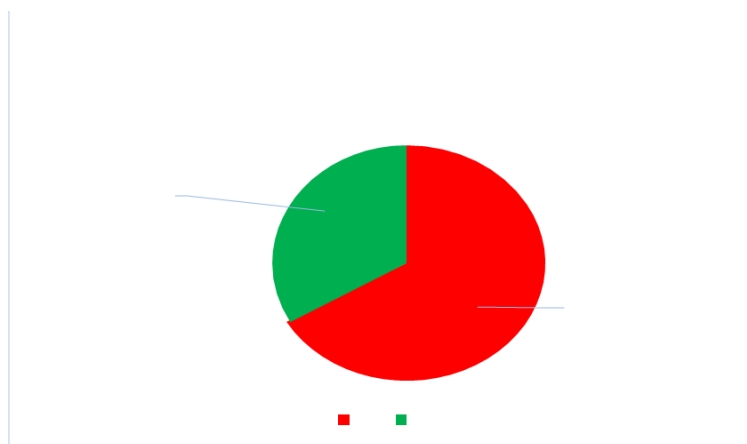


Figure 4.2 Lecturers availability for individualized assistance for masters' students

Masters students also shared in the sentiments regarding lecturer availability. From a total of 123 students, 82 students cited the availability of lecturers for individualized assistance. This is 67 percent representation of the total valid sample size for masters students. A total of 41 students reported that there were no lecturers available for individualized assistance. It is worth noting that there was 100% lecturer availability for individualized assistance for PhD students as all the PhD students gave positive answers. This denotes that there is more effort made towards PhD studies in the Faculty of Arts by the respective lecturers. Lecturer student ratio for postgraduate students varies from 1:1 to about 1:50 to guarantee quality for the postgraduates (Dean, Faculty of Arts) The increase in faculty-student ratio indicates a sign of increasing quality (Roy & Jamison, 1976)

Course content coverage per unit

An analysis of the course content coverage per unit gives insight into how much amount of the syllabus for each unit is covered and in turn, how does this affect the overall outcome or performance of the students. Figure 4.3 shows the course content coverage for Bachelors degree students in the Faculty of Arts.

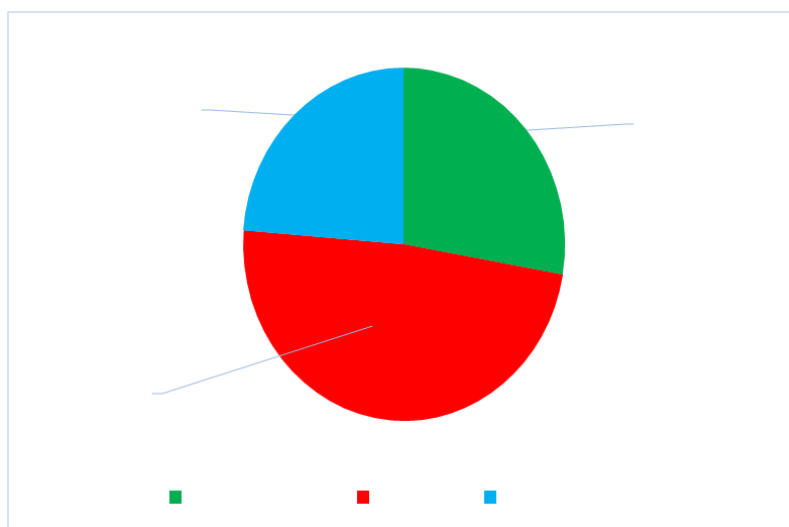


Figure 4.3 Course content coverage rating by bachelor's degree students

Bachelor students reported on a higher side, average coverage of their course content. 278 students or 48 percent of the bachelors students rated the course content on average. On the other hand, 136 bachelors students (24 percent) rated the course content coverage as above average. 159 students (28%) rated the course content coverage as being below average. Figure 4.4 shows course content coverage rating by masters students

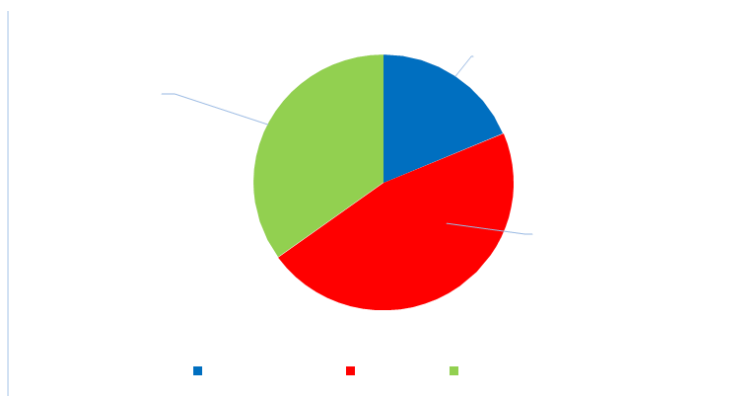


Figure 4.4 Course content coverage rating by masters students

There was a good rating of the course content coverage with regard to masters students. From the total sample size, 57 students rated the course content coverage as average. This was 46 percent of the total sample size. 43 students (35 percent) rated course content coverage as above average while only 23 students (19 percent) rated course content coverage as below average.

Course content coverage for PhD students

The course content coverage for PhD students was excellent as all the students rated it as above average. This shows that the lecturers put in more effort in ensuring that course content coverage per unit is done to maximum completion.

This therefore means that course content coverage was good based on the cumulative positive scores deducted from the analyzed data of all categories of students. This also is an indicator of quality education in the Faculty of Arts.

Internet access

Access to internet enables one to have at their disposal, tools for accessing online study and research materials. The study interrogated the level of internet access among students who participated in this study, and gives the following analysis.

Internet usage frequency

This aspect gives insight into the frequency of internet usage among students in the Faculty of Arts, University of Nairobi. Internet usage frequency here was measured in terms of daily usage, weekly, monthly and no usage at all.

Figure 4.5 shows the internet usage frequency among Bachelors degree student

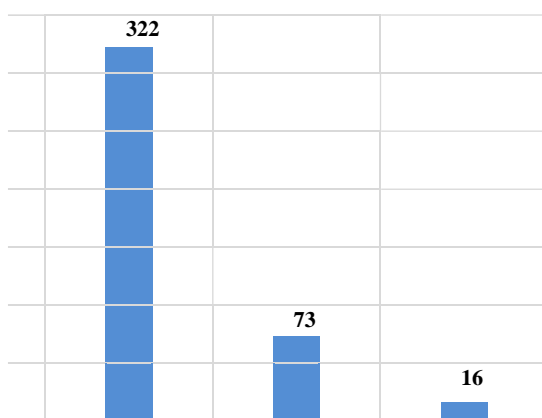


Figure 4.5 Internet usage frequencies among Bachelors degree students.

For bachelors degree students, there was a high number of students who use internet more frequently on a weekly basis. This was recorded in 322 students, representing 565 of the total valid sample of bachelors degree students. Those who did not use internet at all were 16, being only 3% of the total valid sample.

Students who used internet on a daily basis were 162 (28%) while those who used internet on a monthly basis were 73, being 13 percent representation of the total valid sample size.

From table 4.1, we can note that most bachelors degree students cited cyber café as their point of internet access. However, this study did not venture to find out the location of these cyber cafes; whether within campus or outside campus. A total of 195 students out of the total valid sample size of 573 bachelors students used cyber café as their point of internet access. This is 34 percent representation of the total valid sample size. Those who used lecture room internet ports were the least, being only 5 students (1%).

Students who used computer laboratories were 82 (14 percent), this is a clear indication that computer laboratories are not enough. Those who used library internet facilities were 60 (11 percent), those who used hostels as their point of internet access were 127 (22 percent) while those who used personal internet facilities were 104 (18 percent). From this data, internet connectivity point is inadequate in the faculty of Arts because most of the students access the internet in the cyber cafes as opposed to computer laboratories. ACTIC, (2004) indicates that internet connectivity in universities in Africa was too little, too expensive and poorly managed.

V. Research Findings

Firstly, the data analyzed, it was established that lecturers are not adequately available for individualized assistance and tutorials for undergraduate students in the Faculty of Arts. However, for the masters students and the PhD students, lecturers are available for individualized assistance and tutorials. In both the undergraduate and postgraduate studies, the lecturer's man-hour attendance was above average. The study also established that the lecturers cover the course content as planned adequately.

Secondly, study concludes that both the undergraduate and postgraduate students use internet for educational purposes. They access internet in the computer laboratories, library internet ports, hostels, lecture rooms while others use their own personal gadgets like mobile devices. The lecturers are able to access internet in their various offices using either wireless connectivity or internet ports.

VI. Conclusion

The research established that lecturers are not adequately available for individualized assistance and tutorials for undergraduate students in the Faculty of Arts. However, for the master's students and the PhD students, the lecturers are available for individualized assistance and tutorials. In both the undergraduate and postgraduate studies, the lecturer's man-hour attendance was above average. The study also established that the lecturers cover the course content as planned per unit and as this was ranked above average.

Secondly, the study concludes that both the undergraduate and postgraduate students use internet for educational purposes. They access internet in the computer laboratories, library internet ports, hostels, lecture rooms while others use their own personal gadgets like mobile devices.

The lecturers are able to access internet in their various offices using either wireless connectivity or internet ports. The study further concludes that internet accessibility is not very adequate among some levels of study especially the bachelor degree student.

The study also found out that the learners with disabilities have not been well incorporated into internet accessibility as there were no specialized computers available for such groups of persons. However, this aspect was not majorly part of the interrogative part of this study. The study also concludes that internet accessibility influences the performance of the students.

VII. Recommendations On The Research Findings

Based on the findings of the study, the following recommendations are made; The Government of Kenya through the Ministry of Education ought to increase budgetary allocation (capitation) to the University of Nairobi and to the faculty of Arts and also hire qualified lecturers, tutors and trainers for the University to increase the lecturer student ratio This will ensure that the students get individualized and personalized tutorials.

Additionally, adequate capitation will enhance internet access as it is vital for purposes of achieving quality education.