

**INSTITUTIONAL CAPACITY INFLUENCING PROVISION OF
QUALITY EDUCATION IN PUBLIC UNIVERSITIES: CASE OF SCHOOL
OF EDUCATION, UNIVERSITY OF NAIROBI, KENYA**

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the Award of the Degree of Master of Education in Economics of Education**

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DECLARATION

This research project is my original work and has not been presented for award of a degree in any other university



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This research project is dedicated to my wife Lydia Ornyo and Children Bravine and Loadiantrix for their encouragement and moral support throughout this project.

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LIST OF ABBREVIATIONS AND ACRONYMS

AfriQAN.....	African Quality Assurance Network
ATICS.....	African Tertiary Institutions Connectivity Survey
CHE.....	Commission for Higher Education
COL.....	Commonwealth of Learning
CUE.....	Commission for University Education
E.P.....	Educational Processes
GDP.....	Gross Domestic Product
	i .
ICT.....	Information and Communication Technology
NAAC.....	National Assessment and accreditation council
NACOSTI.....	National Commission of Science, Technology and Innovation
OECD.....	Organization for Economic Cooperation and Development
SoE.....	School of Education
UNICEF.....	United Nation Children's Fund
UNESCO.....	United Nations Educational, Scientific and Cultural organization
USA.....	United States of America
USAID.....	United States Agency for International Development.

ABSTRACT

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 to enhance quality education. University of Nairobi has been ranked through webometrics ranking of world universities 2015 as fourth 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 capacity influencing quality education provision in public universities: case of school of education, university of Nairobi, Kenya. The study was guided by the following objectives; To assess how lecturer-student ratio influence provision of quality education in public universities in Kenya, to examine how internet access level influence provision of quality education in public universities in Kenya, to assess the availability of teaching-learning resources influence provision of quality education in public universities in Kenya and to analyze how the adequacy of physical facilities influence provision of quality education in public universities in Kenya. The research employed descriptive survey design and was built on Human Capital Theory. The target population for this study was the undergraduate students, master of education students and dean school of education. The study used simple random sampling and purposive sampling. There was use of questionnaires, interview and observation schedules as tools for data collection. Descriptive statistics were used and data analysis and results presented using frequency tables, bar graphs, percentages and pie charts. The study concluded that institutional capacity factors influence the provision of quality of education. 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. On the second objective, internet accessibility at the various places affect the performance of the course work hence affecting quality of education. The study also concluded that availability of teaching learning resources and their adequacy influence the provision of quality education. As a result of this the study recommends that the school of education ought to add the teaching staff to increase the lecturer student ratio so as to ensure that the students get an individualized and personalized tutorials, there is need to add more computer laboratories because many students use them to access internet, add internet ports in the lecture rooms to enhance connectivity even when the wireless connectivity is limited, library materials also need to be customized to ensure that even student with disability can access all electronic materials with ease, lecture halls should be fitted with better furniture, public address system, projectors (electronic equipment that facilitate projection by lecturers) smart boards, proper lighting and hostels need to be increased and the existing ones need renovation. There is also need for more classroom space, offices and tutorial space. This will help promote the quality of service provided by the school and university at large.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Education is relied on in fostering national efforts to boost productivity, competitive economic growth, innovation and performance across social and economic sectors. As a capital good, education is used to develop human resources that serve as input into production of other goods and services resulting in social and economic transformation of the society (Olaniyan and 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 tertiary 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 worlfeconomic stage has been attributed to its decades-long successful efforts

to provide high-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 quality and quantity dimensions of an education system (Olaniyan and 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 the educational infrastructure, the cadre of qualified tutors, the quality of teaching and learning resources and other resources in place (UNESCO, 2005).

Quality of university education is a function of input, process and output of the system. They further note that, key educational inputs including student/academic staff ratio, ICT infrastructure/internet connectivity and access, teaching learning resources and physical facilities are termed crucial for quality education (Cheng and Tam, 1997).

Student/faculty ratio is the number of students who attend a university divided by the number of teachers in the institution. It reflects faculty workload and the

availability of lectures' services to their students. The lower the student/teacher ratio, the higher the availability of lecturers' services to students.

The student/faculty ratio has implications not only for the cost of education, but also for the quality (OECD, 1995). In developed countries like United Kingdom (UK), lecturer student ratio is used in accrediting university programmes and courses, a significant basis of raising tuition fees, an indicator on the level of investment in education and a selling point to those choosing institutions of tertiary education (Court, 2012). On the other hand, high student-teacher ratio is often cited for criticizing proportionately underfunded educational systems, or as evidence of the need for legislative change or more funding for education.

Internet revolution has shifted the focus of ICT in education to its impact on online activities: use of Internet, use of educative online platforms, digital devices, use of blogs and wikis among others. Information and communication technology (ICT) constitutes an input in the student learning process that should help produce better learning output by making it possible for students to access books and journals, carry out assignments online, make references, stay in touch with lecturers throughout the learning period (Fuchs and Woessman, 2004; Etim, 2006).

Through analyzing citations from a test on geography student's use of sources, Fescemeyer (2000), established that of undergraduate students in World Regional Geography, 51% of the citations referred to sources on paper, 47% of the sources

were from the Internet and 2% was course material. Kulik's (1994) in Youssef and Dahmani (2008) carried out meta-analysis study within selected universities in Europe, which revealed that, on average, students who used Information and Communication Technologies (ICT)-based instruction scored higher than students without computers. The students also learned more in less time and liked their classes more when Information and Communication Technologies (ICT)-based instruction was included. This finding underscores the usefulness internet access in enhancing quality of education provided in universities.

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Physical facilities influence the students' use of institutional resources and therefore institutions of learning must ensure their adequate supply if quality education is to be ensured (Oyedum and Nwalo, 2011). According to Omotayo (2008), carrying out lecturing, research work, seminars, workshop and other practical assignments will be properly done if the physical facilities are adequate. Therefore, for universities to provide quality learning and research process, he observes that, they are expected to provide adequate lecture rooms, library space, chairs, tables, and lighting system. In Nigeria for instance, it was revealed that inadequacy of physical facilities especially in some federal libraries influenced negatively the use of libraries with result indicating that lack of adequate chairs, lighting systems and tables resulted in low level of use of Nigerian university libraries (Oyedum and Nwalo, 2011).

Ugwuanyi, Eze and Obi (2013) define teaching-learning resources as basic requirements that aid and facilitate effective teaching and learning comprising audio and visual teaching technology resources like projectors, smart boards, white boards or blackboards, office and student computer systems among others. The extent to which education services are customized for example, small tutorials or individual supervision is influenced by number of students and availability of teaching and learning resources (Nicholls, 1987). According to Organization for Economic Co-operation and Development (OECD), at the Dublin Institute of Technology in Ireland, the new teaching methods using e-learning have influenced the design of new teaching facilities. At Alverno College in USA, all classrooms are arranged with tables and chairs, no floor-bound desks, to allow for more interactive engagement among students (Forest and Altbachssss, 2006).

With student population of about 68,000, the university of Nairobi 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.

However, 2014 annual report of school of education and departmental strategic plans (2014-2018) highlights key drawbacks as overstretched facilities, furniture and equipment, strain on the available staff, inadequate bed space, stretched library and computer facilities, congested lecture rooms among others. What remains unclear however, is the extent and magnitude of the challenges given limited documentation and research that exist. This limits ability to have a scholarly perspective on current institutional capacities and facilities with regard to provision of the quality of the school's academic programmes. Therefore the study will focus on institutional capacities on the provision of quality education at school of education university of Nairobi.

1.2 Statement of the problem

With four main thematic areas of specialization, school of education (SoE) continues to grow both in terms of student population (especially module II) and number of academic programmes offered. The school offers its programmes through regular (full time), evening, school based, and through department of educational administration and planning, the school has rolled out e-learning mode of delivery and mounted a program in Somalia for Masters in Education and post graduate diploma in education, (SoE annual report, 2014).

There has been a lot of effort from the department of education and planning in strategizing how to achieve its vision "to be a leading Centre of excellence-in human capital development in the education sector for sustainable development" within the changing university culture. The school of education has committed on review of its policy on staffing and staff levels, physical facilities and infrastructure. However, there is a general consensus from 2014 departmental reports under the school that, inadequate staff, teaching/learning resources, infrastructure (lecture rooms, tutorial and office space), resulting from additional programs without corresponding financial resources remains key challenge to effective delivery of its programmes.

What is not clear is the extent to which the challenges (in terms of academic staff/lecturer-student ratio, physical facilities, teaching-learning resources and ICT infrastructure/internet access) have influenced quality of education offered. With limited studies available, this study sought to fill this gap by analyzing institutional capacities influencing provision of quality education in the school of education, university of Nairobi.

1.3 Purpose of the study

The purpose of this study was to analyze institutional capacities influencing provision of quality education in public universities: case of school of education, University of Nairobi, Kenya.

1.4 Objectives of the study

The study targeted achieving the following specific objectives;

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- i. To assess how lecturer-student ratio influence provision of quality education in public universities in Kenya.
- ii. To examine how internet access level influence provision of quality education in public universities in Kenya.
- iii. To assess the availability of teaching-learning resources influence provision of quality education in public universities in Kenya.
- iv. To analyze how the adequacy of physical facilities influence provision of quality education in public universities in Kenya

1.5 Research questions

The following questions 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?
- iii. How does availability of teaching-learning resources influence provision of quality education in public universities in Kenya?
- iv. How does physical facilities influence provision of quality education in public universities in Kenya?

1.6 Significance of the study

The findings of this study ought to help the school of education management and administrators by revealing the extent of institutional capacity 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. By looking at institutional capacities, this study pinpointed areas that may need the attention of stakeholders in general in order to ensure production of quality, employable graduates.

1.7 Limitations of the study

The respondents' availability particularly academic staff due to their busy scheduler was a likely challenge. However, the researcher sought appointment in advance from the academic staff and collected data within campus session in order

to access students more particularly masters students. Similarly, the fear to provide information especially on inadequacies of capacities which seemed like discrediting the institution was handled by researcher assuring confidentiality and anonymity of the respondents and that data was to be used for academic purposes only.

1.8 Delimitation of the study

The study was confined to the experiences of school of education, University of Nairobi. Only dean, masters' students and bachelors of education (arts) students were considered for the study. Similarly, the study focused on adequacy of academic staff, connectivity of ICT infrastructure, availability of teaching and learning resources and physical facilities. Even though there were other institutional capacities influencing quality at school of education, they were not explicitly examined by the study.

1.9 Basic assumptions of the study

The researcher based the study on the following assumptions:

- i. That the respondents' responses were accurate, reliable and not out of any fear.
- ii. That the most critical institutional capacities in provision of quality education were; lecturer-student ratio, internet access, availability of teaching learning resources and adequacy of physical facilities.

1.10 Definition of significant terms

Academic staff/faculty member refers to the teaching staff at the university.

Information Communication Technology (ICT) refers to diverse set of technological tools and resources used to communicate, create, disseminate, store and manage information within the education institution.

Institutional capacities refers to inputs in the teaching learning process, which determine the quality of output or outcomes of an education system such as academic staff, connectivity of ICTs, teaching learning resources and physical facilities.

Physical facilities means any structure intended to be used for lecturing or like lecture rooms and lecture theatres, staff offices, research areas, seminar rooms, libraries and or students residences, communal and social services areas such as places of worship, kitchen, dining, common rooms, recreational facilities.

Quality refers to the standard or the degree of excellence of education as measured against employability of graduates, growth in research and publication, increased income among other variables.

Quality education refers to ability of education system (input-process-output) to provide standardized learner experience as indicated by quality of students' scholarly work, their employability and ability to contribute to economic development through provision of adequate institutional capacities.

1.11 Organization of the study

This study has five chapters. Chapter one include introduction and background to study, statement of the problem, purpose of the study, objective of the study, research questions, limitations of the study, delimitation of the study, basic assumptions of the study, definition of significant terms and organization of the study. Chapter two contains a review of literature which includes the following sub-headings; concept of quality education, quality assurance in higher education in Kenya, the role of quality education on development, influence of lecturer-student ratio on quality of education, internet accessibility on provision of quality education, quality education and teaching learning resources, relevance of physical facilities on provision of quality of education. It also includes theoretical framework, conceptual framework and a summary of the literature review.

Chapter three covers the research methodology which includes; research design, target population, sample size and sampling techniques, instrument validity, instrument reliability, data collection procedure, data analysis techniques and consideration for ethical issues.

Chapter four covers findings and discussion and chapter five has data presentation and summary of the study, conclusions and recommendations for further research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Introduction

This chapter reviews literature on the following areas; concept of quality education, quality assurance in higher education in Kenya, contribution of quality education on development, influence of lecturer student ratio on quality of education, the role of internet access on provision of quality education, relationship between quality education and teaching learning resources, relevance of physical facilities on provision of quality education. In addition, the section provides summary of the literature review, theoretical framework and conceptual framework of the study.

2.2. Concept of quality in education

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 and 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 and 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.

2.2.1 Quality assurance in higher education in Kenya

Higher education in Kenya like the rest of the world, has witnessed continuous and rising demand and particularly the university system. Among other ways, public universities responded to this development by mounting privately sponsored programmes, taking over middle level colleges, establishment of satellite campuses, distance learning programs, evening programs and establishment of new universities (Owuor, 2012).

Commission for Higher Education (CHE) was established in 1985 by an Act of Parliament, Universities Act CAP 21 OB as a body corporate, to make better provisions for the advancement and quality assurance of university education in Kenya and for connected purposes (CHE, 2012). However, CHE mandate were highly limited to private universities a fact that saw an enactment of Universities Act, No. 42 of 2012, to establish Commission for University Education (CUE) as the successor to the Commission for Higher Education that has mandate over both public and private universities in Kenya.

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CUE is mandated with among other roles to accredit, regulate, inspect, promote, set standards and assure quality and relevance of university programmes (university Act, 2012). Among other requirements for universities to be accredited, it has to prove its capacity in terms of human resource and physical infrastructure. However, universities remain autonomous in carrying out internal day to day mandates and in award of degrees. The Commission is also a full member of International Network of Quality Assurance Agencies for Higher Education (INQAAHE) and African Quality Assurance Network (AfriQAN). This ensures there is comparability of the quality of university education among the member countries regionally and globally (CUE, 2013).

2.2.2 The role of quality education on development

Harbison (1973) argues that the wealth of nations depend on their capacity to develop their human resources and not so much on their physical resources. He argues that —if a country is unable to develop skills and knowledge of its citizens and to make use of them effectively in the national economy it will be unable to develop anything else. Education provides a route to economic prosperity, the key to scientific and technological advancement, the means to combat unemployment, the foundation of social equality, equal wealth distribution, and the spearhead of political socialization and cultural diversity (Pscharopolous, 1988). Countries with high literacy rates among men and women have lower levels of fertility, lower infant and maternal mortality and longer life expectancy (Otiato, 2009).It is from this background that an assumption of existence of a causal relationship between provision of quality education and socio-economic development emanates. Therefore, quality education is paramount if Kenya has to achieve its aspiration of becoming middle-income country in which all citizens will: have embraced entrepreneurship, perform more non-routine tasks, be capable of more complex problem-solving, be able to take more decisions, assume more responsibility, and have better reading, quantitative reasoning and expository skills as envisaged in vision 2030.

2.3. 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 and 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. Similarly, a study carried out in Universities in Cross Rivers State, Nigeria on use of ICT by academic staff to promote learning established that excess work load resulting from high student lecturer ratio was a major challenge to effective ICT usage among academic staff since they were very few (Ijeoma, Ogbiji and Idem, 2010). This compromises the quality of education and its ability to produce productive graduates.

2.4. 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%). Jagdoro (2004) through his research on universities in Nigeria,

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established that 45.2% of postgraduate students access the Internet at the cyber cafe 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% of students and researchers use it on daily basis, 38.3% on weekly basis and 10.7% on monthly basis. World Bank sponsored African Tertiary Institutions Connectivity survey (ATICS, 2004) established that Internet connectivity in tertiary institutions in Africa was too little, too expensive and poorly managed. As a result, with little bandwidth that is available it becomes even less useful for research and education purposes. These findings indicate limited use of ICT in enhancing quality of university education in Africa for which Kenya is no exception.

2.5. Quality education and teaching learning resources

Young people are capable of understanding abstract ideas if they are provided with sufficient materials and concrete experiences with the phenomenon that they understand (Bolton, 1988 in Mbirithi, 2013). As an integral component of learning process, adequacy and availability of instructional materials is important. In his study, Bett (2006) found out that quality of education has direct relevance to availability or lack of instructional materials and noted that curriculum cannot be easily implemented without instructional materials.

Through their study on teacher training institutions in Bungoma, Likoko, Mutsotso & Nasongo (2013) established that, teaching learning resources were higher in higher performing educational institutions than in low performing ones and that there is a significant difference in instructional resource availability in the higher performing educational institutions and low performing ones. These findings also indicate that most institutions faced with challenges such as lack of adequate facilities like libraries and inadequate instructional materials tend to have a negative effect on the quality of graduates. As such teaching learning resources form vital component of institutional inputs that are necessary for quality education.

2.6.Relevance of physical facilities on provision of quality education

Institutional facilities have direct effect on learning and performance of students. In all levels of learning including higher education institutions, availability of physical facilities like classrooms, desks, chairs among others had positive relationship to quality of education. Availability of these facilities creates conducive learning environment hence enabling students to perform well (Earthman, 2006).

A study carried out by Organization for economic cooperation and development (OECD, 2011) titled 'Well-being at school: does infrastructure matter?' focused on structures, safety of buildings, integration of ICT in the buildings, and physical comfort of the building. It was established that, there is a stark contrast in satisfaction levels between students attending schools with good quality infrastructure as compared with those in schools with poor infrastructure. Studies carried out in Botswana, Nigeria and Papua New Guinea; concur with these latter findings (UNICEF, 2000). It is therefore vital that, to ensure quality education physical facilities are adequate and up to standard.

2.7. Summary of the literature review

Examination of various literature on; lecturer student ratio, **internet** accessibility, teaching-learning resources and physical facilities indicate challenges facing public universities across the world as well as in Kenya and their implications for quality education. The increase in students enrolment in public universities and change in the study modes coupled with the mismatch between the skills imparted at the universities and the labour market requirements, have brought concerns about quality education provision. Studies concur that institutional capacities must
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be in direct proportion with the increasing university programmes and student numbers to ensure quality of education for which this study seeks to examine.

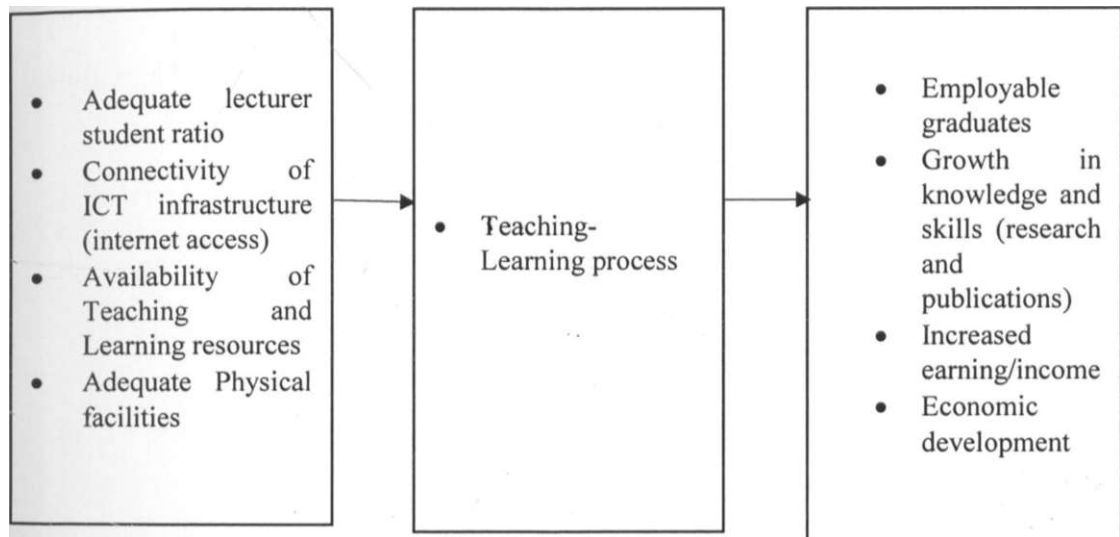
2.8. Theoretical framework

Theoretical frame work for this study is based on the Human Capital Theory developed by Schultz in 1960. According to this theory, education and training raises the productivity of workers by imparting useful knowledge and skills, hence raising workers' future income by increasing their lifetime capacity to produce (Becker, 1994). Shultz postulates that human capital is similar to "physical means of production", one can invest in human capital (via education and training) and one's outputs depend partly on the rate of return on the human capital one owns. In order to have productive citizenry (educational output) postulated in human capital theory, quality of education is paramount.

However, quality education largely depends on level of investment in institutional capacities such human resources, physical facilities and infrastructure which the study seeks to analyze.

2.9. Conceptual framework

Figure 2.1: Relationship between institutional capacities and quality



In Figure 2.1, higher education systems have input sub-system, a process sub-system and an output sub-system. The inputs into the system are human resources (both student and teachers/lecturers), teaching learning resources, ICT infrastructure and physical resources (such as lecture rooms, hostels, offices, computer laboratories among others).

With adequate supply of the inputs, teaching learning process (including management activities) become more efficient allowing tutorials, research and publications by staff and individualized teaching among others. This enables production of quality outputs from the system including employable graduates, growth in knowledge and skills (through increased research and publication), and economic developments (such like increased incomes and quality life among the citizenry).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1.Introduction

This section focused on research design, target population, sample size and sampling procedures, instrument validity and reliability, research instruments, data collection and procedures, data analysis techniques and consideration of ethical issues.

3.2.Research design

According to Kothari (2013), a research design refers to the conceptual structure within which the research will be conducted. This study will apply descriptive survey design. The study aimed at collecting information from respondents on their opinion in relation to institutional capacities on the provision of quality education in public universities in Kenya. Therefore, descriptive survey design was appropriate since according to (Orodho and Kombo, 2002) it allowed the researcher to collect information by interviewing or administering questionnaire to the sample of individuals especially when seeking out opinions of people about something and for collecting generalizable information from any human population. Further, descriptive survey design was suitable since it deals with both quantitative and qualitative data which the instruments in this study intended to gather.

3.3.Target population

According to Kothari (2013), target population refers to all items or collection of elements under consideration in any field of inquiry. It refers to the entire population to whom the results of the study would be generalized. The target population constituted of 2,467 students in the categories of: Master of education 616, bachelor of education arts (1851) and the dean school of education. Therefore a total of 2,468 respondents form target population (SoE annual report, 2014).

3.4.Sample size and sampling procedures

According Lapin (1987), sample size refers to collection of observation representing only a portion of the population. Gay, (1992), argued that at least 20% of population is a good representation which has proved true even today. As such 123 masters' students (20% of 616) and 370 bachelor's students (20% of 1851) will form student sample and will be randomly selected. Dean school of education was purposively picked as head of school of education and was deemed to be in possession of basic information to be sort by the researcher.

3.5.Research instruments

The researcher used interview schedules, structured questionnaires and observation schedule to collect data from administrators and students. As indicated by Mitei (2002), descriptive data are typically collected through interviews, questionnaires **and observations.**

Questionnaires were used to collect data from respondents on, lecturer-student ratio, internet access, availability of teaching learning resources, and adequacy of physical facilities. Interviews provide interactive environment and enables a researcher to cover the phenomenon under investigation in great depth (Mwanje, 2001). Therefore, interview schedule was used to collect data from management and as a follow up on information given in questionnaires to seek more clarifications. In carrying out observation, the researcher moved around lecture halls, libraries, hostels, dining halls and in the computer laboratories with aim of observing and recording the condition of physical facilities, teaching-learning resources and the learning environment to establish the conditions and adequacy of university learning resources.

3.6. Instrument validity

Instrument validity refers to the extent to which an instrument measures what it is supposed to. According to (Mugenda and Mugenda, 2009), the usual procedure in assessing validity of a measure is to use professional or expert in particular field. As such the researcher sought instrument validation from supervisors and professionals within the department. The focus was on institutional capacities to determine whether the items in the instruments adequately address the objectives of the study.

3.7. Instrument reliability

Reliability is the measure of the degree to which research adds consistent results or data after repeated trials (Mugenda and Mugenda, 2009). In this case, reliability was measured by split-half method to establish the coefficient of internal consistency of the questionnaires. According to Gay (1992) this method involves splitting the statements (items) of a test into two halves (odd and even numbered items). Then, the odd numbered and even numbered items are placed in two subtests and the scores of the two sub-tests are computed for each individual and correlated using the Pearson's Product Moment Correlation Coefficient formula.

Given "r" as coefficient to be obtained, then;

$$r_{xy} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}}$$

Where:

- $\sum x_i$ & $\sum y_i$ Are number of items in each data set, first set and second set respectively.
- $\bar{x} = \frac{\sum x_i}{n}$ (this is the sample mean: the term for y is similar)

The obtained value however represents reliability of only half of the test. To obtain reliability of the whole test, the Spearman Brown Prophecy formula will be applied. Predicted reliability, P_{xx} is estimated as:

$$P_{xx} = \frac{Np_{xx}}{1 + (N-1)r^2}$$

Where N is the number of "tests" combined and r_{c_i} is the reliability of the current "test".

Pearson's Product Moment Correlation Coefficient provides an estimate of half-test reliability and therefore Spearman Brown Prophecy formula is applied to adjust the half-test reliability to full-test reliability. From the results, a co-efficient of 0.8 was realized and according to Gay (1992), a desired reliability of 0.7 is acceptable. Thus the study instruments were very reliable.

3.8.Data collection procedures

A letter of introduction was obtained from department which was then be taken to National Commission of Science, Technology and Innovation (NACOSTI) for research permit. Courtesy call was made to county director of education, university management, principal college of education and external studies, dean school of education, and departmental heads under school of education. The aim of a courtesy call was to inform of intended research and to get approval of the same. Structured questionnaires were administered to respondents and collected by the researcher the same day. Interview schedule were administered to dean school of education and responses recorded by the researcher.

In carrying out observation, the researcher moved around lecture halls, libraries, hostels, dining halls and in the computer laboratories with aim of observing and recording the condition of physical facilities, teaching-learning resources and the

learning environment to establish the conditions and adequacy of university learning resources.

3.9.Data analysis techniques

In analyzing, data was establishment into categories in raw data through coding, tabulation and then drawing statistical inferences. Tabulation enabled the researcher to categorize the subjects in research while frequencies provided basis of analyzing continuous variables. Qualitative data was analyzed by establishing the categories and themes, relationships/patterns and conclusions in line with the study objectives. The information was summarized and statistics derived. The data was then subjected to descriptive analysis encompassing a range of both qualitative and quantitative treatments. Statistical package on social science (SPSS) was applied in data analysis. Data was then be presented by use of tables, frequencies, pie-charts and bar graphs where appropriate and finally making inference about the whole population.

3.10. Consideration for ethical issues

The following ethical issues were carefully observed by the researcher: The researcher sought not to disclose the identity of respondents who may have sought full anonymity; the information obtained from the respondents was only be used for research purposes only.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents data analysis, interpretation, presentation and findings of the study. The general objective of the study was to analyze institutional capacities influencing quality education provision in public universities: case of school of education, University of Nairobi, Kenya. The analysis proceeds according to the specific objectives as explored by the study's questionnaire, observation and interview schedule. Data was presented in frequency tables, pie charts and bar graphs.

4.2. Questionnaire and interview schedule return rate

The rate of return of questionnaires to all respondents is as shown in table 4.1.

Table 4.1 Questionnaires and interview schedule return rate

Category of respondent	Sampled population	Returned	Percentage
Bachelor of education students	370	370	100
Master of education students	123	123	100
Dean of students' interview			100
Total	84	84	100

As shown in Table 4.1, the researcher sent out 370 questionnaires to bachelors of education learners and received back all of them. Also there were 123 masters of education questionnaires and received back the 123 representing 100% return rate. The researcher gave out and collected questionnaires spontaneously as students went about their lectures enabling him to have a 100% return rate.

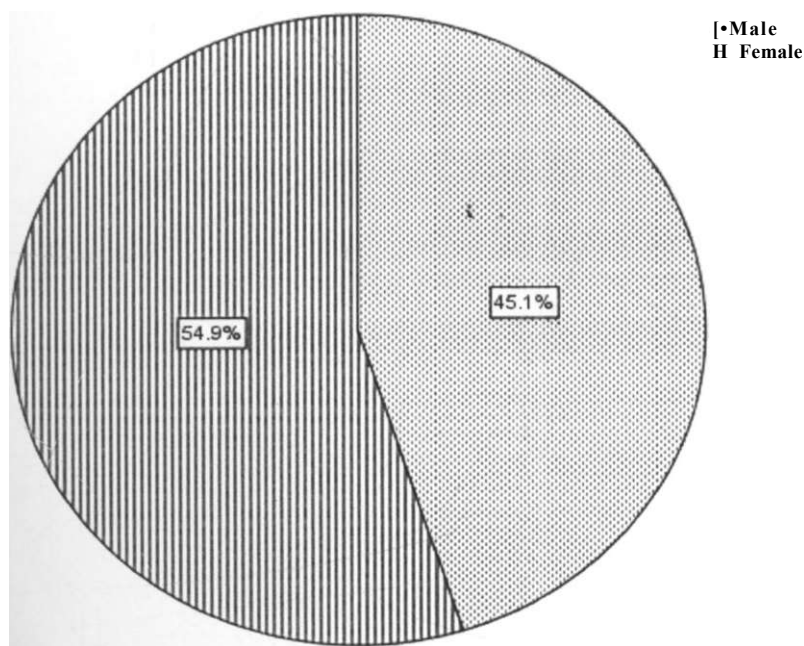
4.3. Demographic information of the respondents

The study sought to find out the demographic information of the respondents to ensure a fair presentation of the findings and discussions. The study classified the Bachelors of Education students in terms of their gender, course of study and the year of study. The master of education students' demographic information was classified in terms of gender, course and year of study as well. This was to help the learner collect representative data from all categories of learners within the school of education.

4.3.1. Gender of the bachelor of education respondents

The study classified the bachelors of education learner respondents in terms of their gender as shown in figure 4.1

Figure 4.1 Gender for Bachelor of education respondents

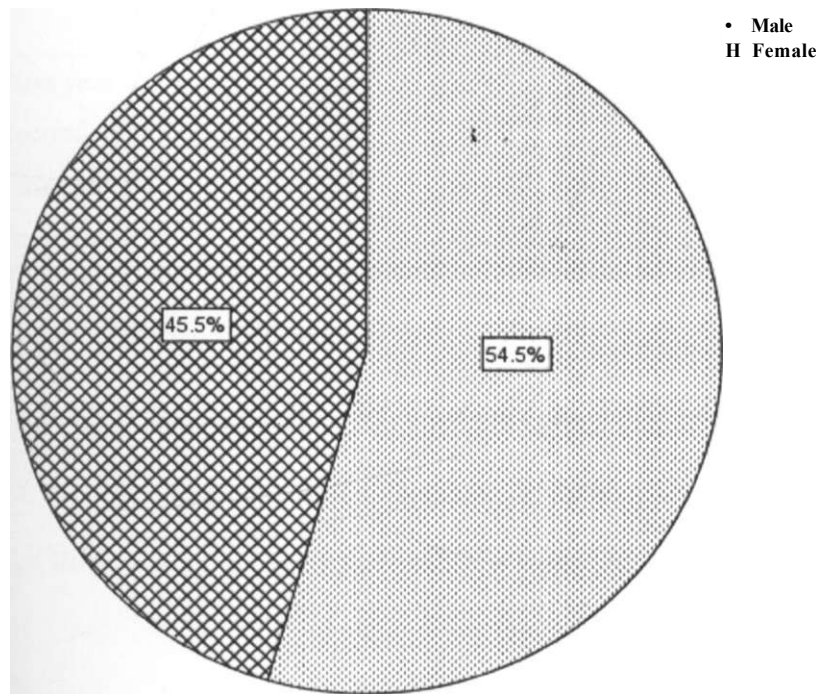


The learners' gender distribution was important to the study to establish the gender disparity in the school of education, University of Nairobi. From figure 4.1, approximately 54.9% of the respondents representing 203 of the students were female while 45.1% representing 167 of the respondents were male. This indicates that there was a fair representation of respondents and all-inclusive findings that allows generalization.

4.3.2. Gender of the master of education respondents

The study sought to find out the demographic information of the respondents to help in the discussion on the fair presentation of the findings for the master of education students. The distribution was as indicated in figure 4.2

Figure 4.2 Gender for master of education respondents



From figure 4.2, the male respondents were represented by 54.5% which was a representation of 67 respondents out of the 123. In addition 45.5% of the respondents were female representing a total of 56 students. This is as presented in Figure 4.2.

4.4 Respondents' academic year of study

The study sought to categorize the respondents in their year of study and as presented in Table 4.2. This was to analyze the fair distribution of the respondents from across the years of study. Bachelor of education students' distribution based on the year of the study is as shown in table 4.2

Table 4.2 Bachelor of education students' year of study

	Frequency	Percent
First year	91	24.6
Second year	93	25.1
Third year	91	24.6
Fourth year	95	25.7
Total	370	100

From the presentation, first year students were presented by 24.6%, second year by 25.1%, third year represented 24.6% while fourth year took 25.7%. This indicated that there was a fair representation of the respondents in all the classes.

For the master of education, the findings were presented as in Table4.3.

Table 4.3 Master of education students' year of study

	Frequency	Percent
First year	65	52.8
Second year	58	47.2
Total	123	100

The study also sought to have a fair representation of the students under the master of education program across the two years of study. Approximately 52.8% of the 123 respondents were from first year while 47.2% were second years indicating that there was a fair representation of the respondents from across the years of study.

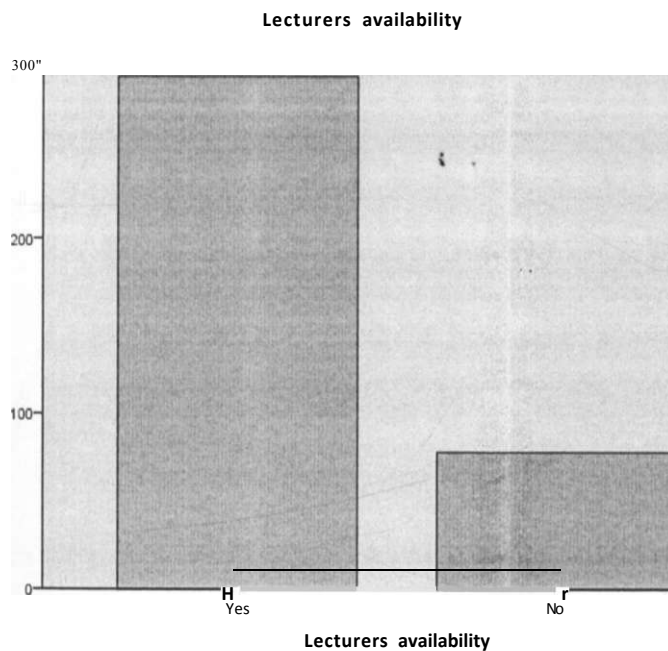
4.5 Lecturer student ratio

The study investigated the prevailing lecturer student ratio from both the Masters of Education and Bachelor of Education students. The main findings were as discussed.

4.5.1. Lecturer availability for individualized assistance and tutorials

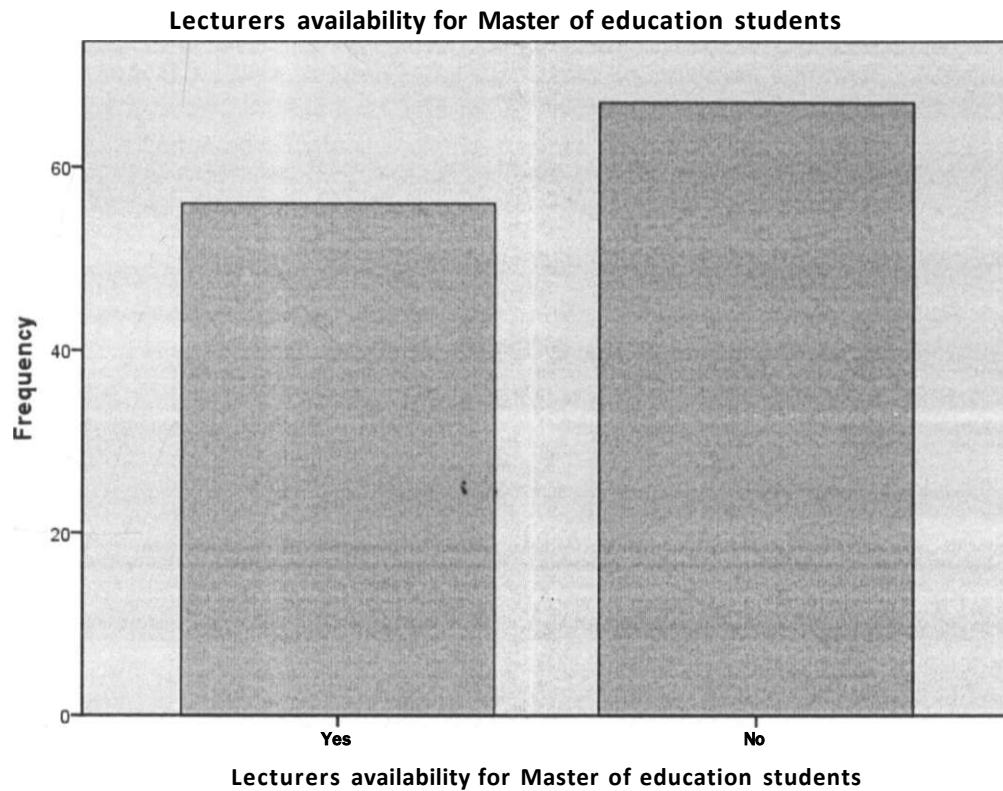
The study sought to establish availability of lecturers for individualized assistance and tutorials for learners so as to enhance quality of learning process within the school. The findings are as shown in figure 4.3 and 4.4

Figure 4.3 Lecturer availability for bachelors of education students



The study found out that of the 370 students sampled from the bachelor of education students, 292 indicated that the lecturers are available for individualized assistance and tutorials while 78 said the lecturers are not available. This was presented in Figure 4.3. This indicates that there is need for the school to explore all ways to ensure maximum interaction between learners and the teaching staff.

Figure 4.4 Lecturers availability for master of education students

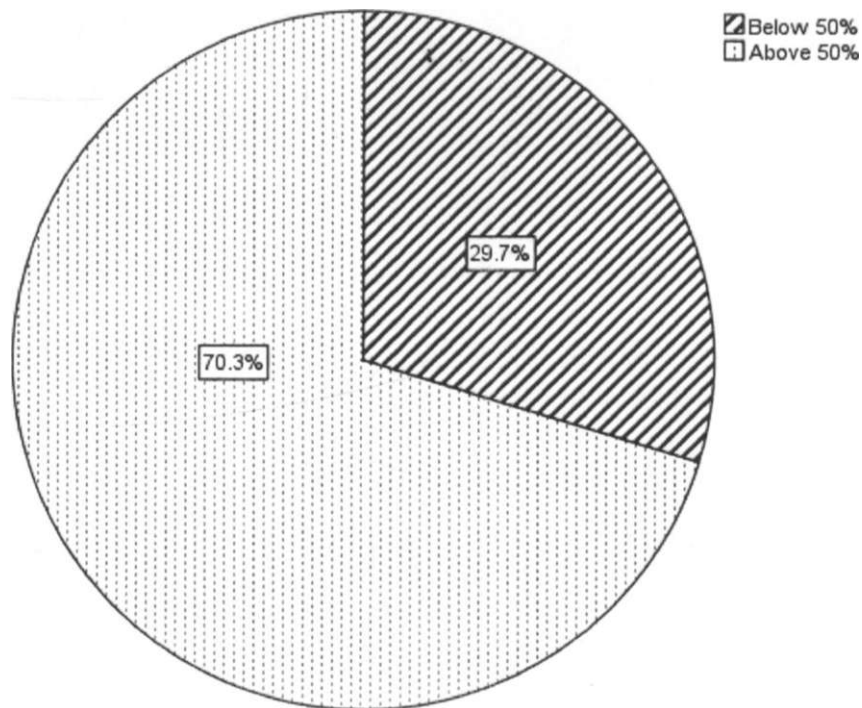


From the representation of 123 masters of education students, 67 indicated that the lecturers were not available for individualized assistance and tutorial while 56 of them indicated that the lecturers were available. This was presented in Figure 4.4. This point to the fact that quality of education received by masters of education students may not be to the expectation. The findings may allude to the fact that lectures have a heavy workload that does not allow them time to interact with learner or they are few within the department.

4.5.2. Lecturers man-hour attendance rate

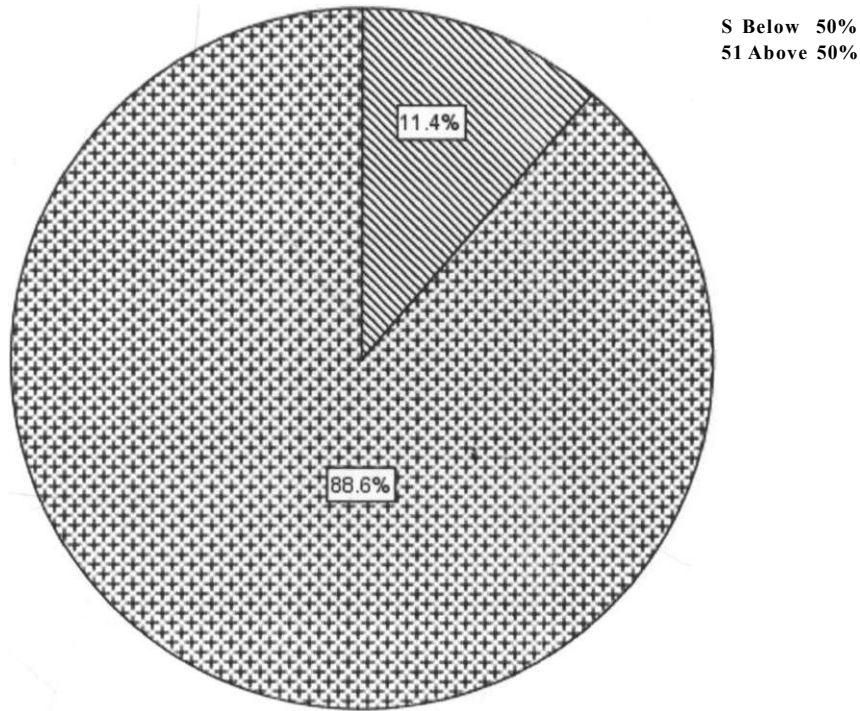
The study sought to establish the average attendance of lecturers for units allocated per semester. This was to enable the researcher to establish the level of content coverage as reflected within the course outline. The findings are as in figure 4.5 and 4.6.

Figure 4.5 Average lecturers class attendance rate for bachelors' students



The study investigated the total number of lecture hours per unit per semester. Approximately 70.3% of the 370 bachelor of education students indicated that they rate the lecturers' attendance to be above 50% while 29.7% indicated that they rate the lecturers' attendance to be below 50% as presented in Figure 4.5

Figure 4.6 Average lecturer attendance for master of education classes



The study sought to find out the number of lecture hours per unit per semester and from figure 4.6, 88.6% of the 123 respondents rated it as above 50% while 11.4% rated the lecturer attendance as below 50%. This is presented in Figure 4.6 above. A good indication that the more than half of the content was covered which shows that education that is being offered is of quality.

4.5.3. Rate of course content coverage

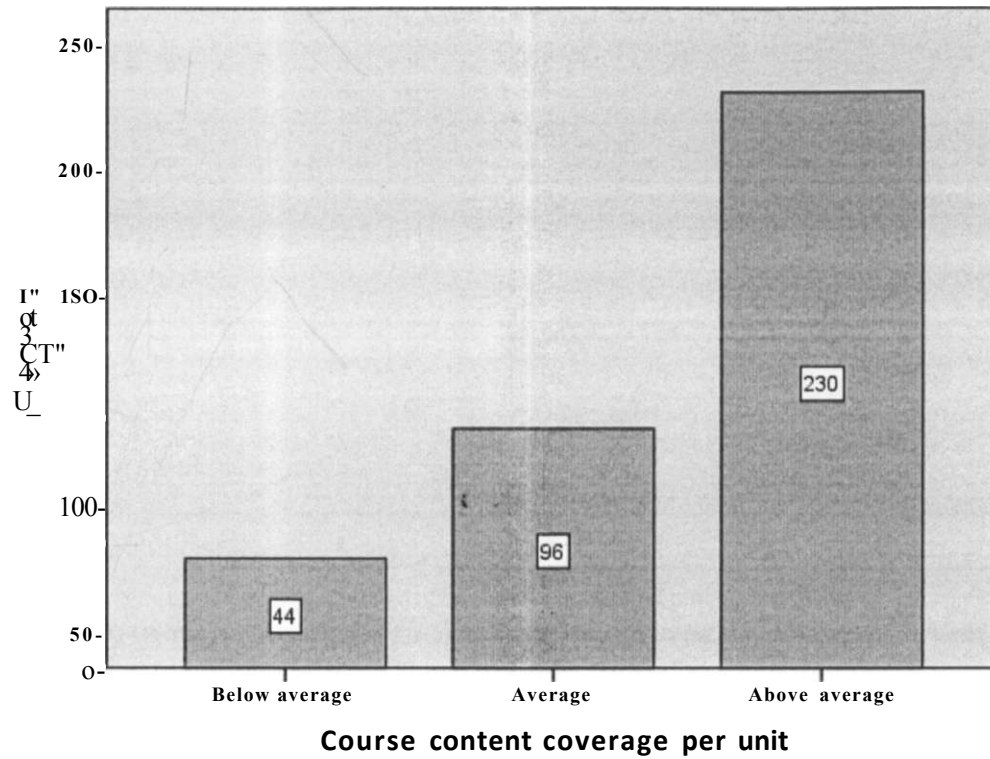


Figure 4.7 Bachelors of education course content coverage

When the bachelor of education students were asked to rate the coverage of course content per unit by lecturers per semester, 230 of the 370 students said that the lecturers covered the course content above average, 96 ranked average while 44 students ranked it below average. This was presented in Figure 4.7.

Course content coverage per unit

120-

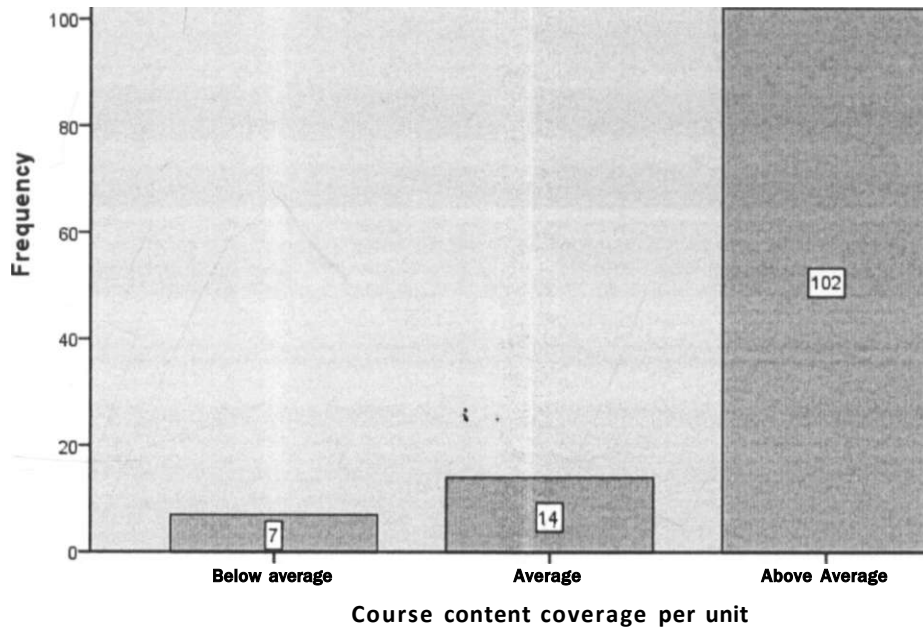


Figure 4.8 Master of education course content coverage

For master of education students, 102 of the 123 respondents indicated that the lecturers are above average in course content coverage, 14 ranked them average while 7 ranked the lecturers below average. This was presented in Figure 4.8.

4.6. Internet Access

Both undergraduate and master of education students were asked of their internet usability for education purposes.

4.6.1. Internet usage frequency

	Frequency	Percent
Daily	218	58.9
Weekly	55	14.9
Monthly	57	15.4
Not at all	40	10.8
Total	370	100

Table 4.4 undergraduate Internet usage frequency

Undergraduate students were asked on how often they use internet for education purposes, 58.9% of the total respondents said that they use the internet daily, 14.9% use it weekly, 15.4% use internet monthly. Findings were presented in Table 4.4.

	Frequency	Percent
Daily	72	58.5
Weekly	7	5.7
Monthly	14	11.4
Not at all	30	24.4
Total	123	100

Table 4.5 Master of education internet usage frequency

As presented in Table 4.5, a 58.5% of the 123 respondents indicated that they use the internet daily, 5.7% use it weekly, and 11.4% monthly and 24.4% do not use the internet at all.

4.6.2. Internet access in campus

The study sought to find out where students frequently access internet for educational purposes while at campus.

	Frequency	Percent
Computer Laboratories	226	61.1
Lecture rooms internet ports	10	2.7
Library internet facilities	55	14.9
Hostels	15	4.1
Cyber cafe	11	3
Personal internet facility/gadget	53	14.3
Total	370	100

Table 4.6 Place of internet access for bachelor's students

As presented in Table 4.6, of the 370 respondents, 226 indicated that they frequently access the internet in the computer laboratories, 10 from the lecture rooms internet ports, 55 indicated that they frequently use the library internet facilities. Of the remaining group, 15 indicated that they access internet in the

hostels, 11 at the cyber cafes while 53 respondents use personal internet facilities or gadgets.

	Frequency	Percent
Computer Laboratories	66	53.7
Library internet facilities	30	24.4
Personal internet facility/gadget	27	22
Total	123	100

Table 4.7 Master of education students' place of internet access

For the master of education students 66 students out of the 123 indicated that they access the internet in the computer laboratories, 30 use the library internet facilities while 27 indicated that they use their personal internet facilities or gadgets as presented in Table 4.7.

4.6.3. Internet accessibility rating

The study investigated the rating of the level of internet accessibility within the campus. The undergraduate respondents gave the following findings as presented in Table 4.8.

	Frequency	Percent
Very adequate	39	10.5
Adequate	158	42.7
Not adequate	162	43.8
Uncertain	11	3
Total	370	100

Table 4.8 Internet accessibility within campus for undergraduate

Approximately 43.8% indicated that internet accessibility is not adequate, 42.7% said that the internet accessibility is adequate. Another group of approximately 10.5% indicated that they are very adequate while 3% said that they were uncertain.

	Frequency	Percent
Very adequate	13	10.6
Adequate	51	41.5
Not adequate	59	48
Total	123	100

Table 4.9 Master of education students' internet accessibility

As indicated in Table 4.9, approximately 48% of the 123 respondents indicated that they are not adequate, 41.5% said that the internet accessibility within campus is adequate while 10.6% indicated that they are very adequate.

4.6.4. Influence of internet accessibility on performance

The study sought to investigate the views of the respondents if they think internet accessibility influences their performance in their course work. The findings were as presented in Figure 4.9.

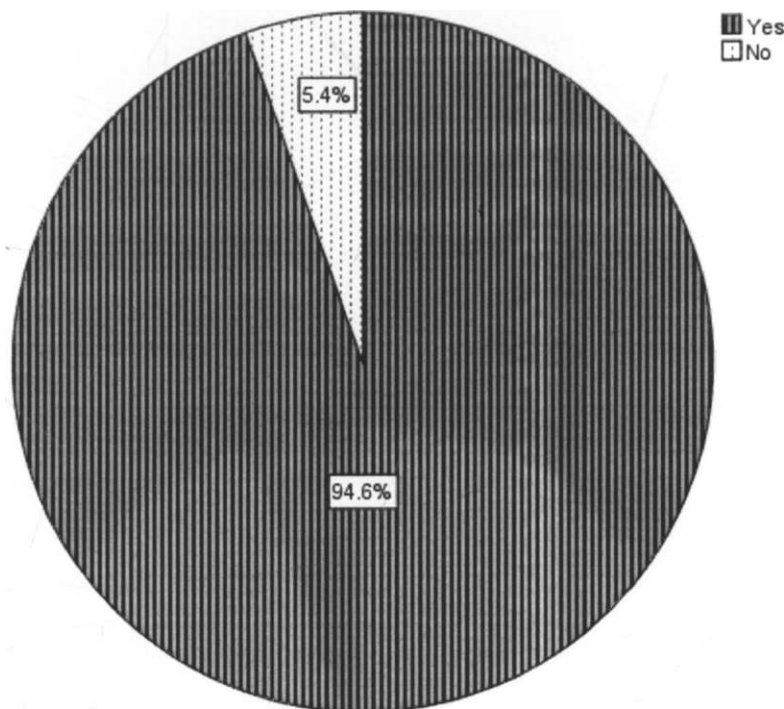


Figure 4.9 Influence of internet accessibility on performance of undergraduates

As indicated in Figure 4.9, approximately 94.6% indicated that according to them internet accessibility influences their performance in course work while 5.4% of the respondents said it does not.

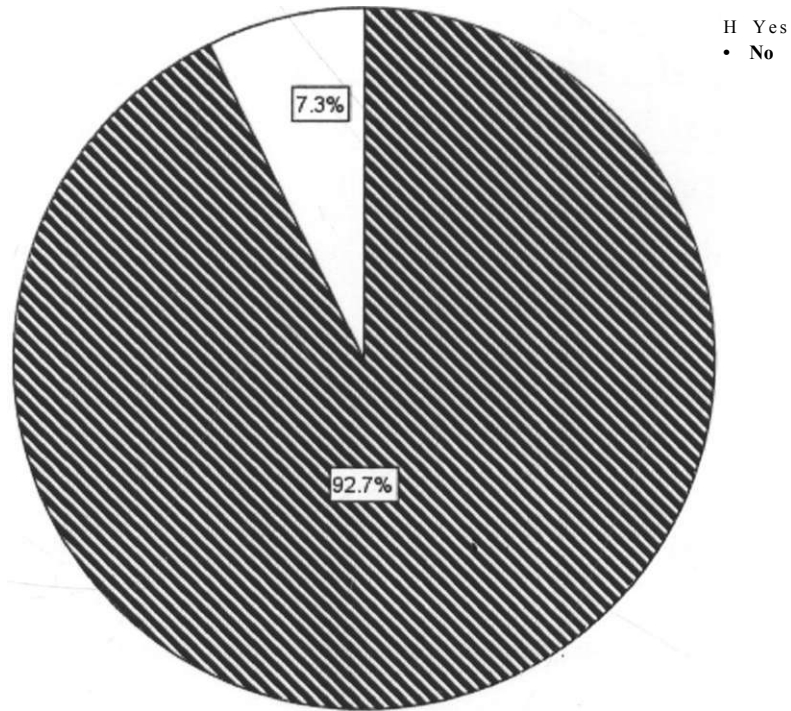


Figure 4.10 Effect of internet accessibility on performance of masters' students

As indicated in Figure 4.10, approximately 92.7% of the 123 master of education students indicated that they think internet accessibility influences their performance in course work.

4.7. Availability of teaching learning resources

The respondents were asked to rate the level of adequacy of various teaching learning resources at school of education. The findings were as presented in Table 4.10.

Rating	Very Adequate			Adequate			Inadequate			Very inadequate		
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Textbooks	22	5.9	126	34.1	201	54.3	21	5.7				
Computers	12	3.2	120	32.4	188	50.8	50	13.5				
Projectors	7	1.9	22	5.9	185	50	156	42.2				
Connection ports	35	9.5	189	51.1	100	27	46	12.4				
Whiteboards	35	9.5	189	51.1	100	27	46	12.4				
Audio visual	15	4.1	48	13	200	54.1	107	28.9				
Tables	71	19.2	255	68.9	44	11.9	0	0				

Table 4.10 Adequacy levels of the teaching learning resources.

As indicated in Table 4.10, textbooks were ranked as inadequate at a percentage of 54.3%, and 34.1% indicated that they are just adequate. Another group represented by 5.9% of the 370 students indicated that textbooks are very adequate while 5.7% said that they are very inadequate.

Computers were also ranked as inadequate at 50.8%, and another very significant group of 34.1% indicated that they are adequate. Approximately 5.9% said that computers are very adequate while 13.5% said that they are very inadequate.

Projectors were rated as inadequate with a representation of 50% and 42.2% said that they are very inadequate. Only a small percentage of 1.9% said they are very adequate*and 5.9% said that they were adequate.

A significant representation of 51.1% indicated that the connection ports are adequate and 27% said they are inadequate. Another presentation of 12.4% said that they are very inadequate while 9.5% said that they are very adequate.

A group of 51.1% said that whiteboards are adequate and 27% said that they are inadequate. A representation of 12.4% and 9.5% had views on the extremes as being very inadequate and very adequate respectively.

Approximately 54.1% indicated that audio visual facilities are inadequate and 28.9% said they are very inadequate. The remaining respondents said that they are either adequate or very adequate.

On the tables and chairs, 68.9% of the respondents indicated that they are adequate while 19.2% said that they are very adequate. The remaining 11.9% said that tables and chairs are inadequate.

Rating	Very Adequate			Inadequate			Very inadequate	
	Adequate	%	Adequate	%	Inadequate	%	Very inadequate	%
Textbooks	0	0	33	26.8	90	73.2		
Computers	0	0	33	26.8	78	63.4	12	9.8
Projectors	0	0	0	0	67	54.5	56	45.5
Connection ports	0	0	58	47.2	65	52.8	0	0
Whiteboards	0	0	51	41.5	66	53.7	6	4.9
Audio visual	0	0	6	4.9	46	37.4	71	57.7
Tables	7	5.7	110	89.4	6	4.9		

Table 4.11 Masters of education students' teaching learning resources

As indicated in table 4.11, approximately 73.2% of the 123 respondents indicated that the textbooks are inadequate while 26.8% said that they are adequate. Another group of around 63.4% indicated that computers are inadequate, 26.8% said that they are adequate and 9.8% indicated that they are very inadequate.

On the adequacy of the projectors, 54.5% stated that they are inadequate while the remaining percentage of 45.5% said that they are very inadequate. A large proportion of 52.8% indicated that connection ports are inadequate while 47.2% said that the available connection ports are adequate.

Approximately 53.7% indicated that white boards are inadequate, 41.5 rates the adequacy of whiteboards as adequate and 4.9% of the 123 respondents said that they are very inadequate. Of the respondents, 57.7% indicated that audio visual facilities are very inadequate, 37.4% said that they are inadequate while a small percentage of 4.9% indicated that they are adequate. On the adequacy of the tables and chairs 89.4% indicated that they are adequate, 5.7% said that they are very adequate while 4.9% said that they are inadequate.

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4.8 Adequacy of physical facilities

The study sought to understand the availability of the physical facilities to investigate their influence in teaching learning process

4.8.1. Accommodation within the university

The study sought to investigate the number of bachelor of education students who have accommodation rooms within the university hostels. The findings were as presented in Figure 4.11

Figure 4.11 Undergraduate room possession in the hostels

When asked if they possess a room in the university hostels, 79.2% of the 370 respondents indicated that they do but 20.8% said that they do not have a room in the university hostels. Of the 123 respondents taking Master of education course, none of them possessed a room in the university hostel and they said that this affects them negatively academically.

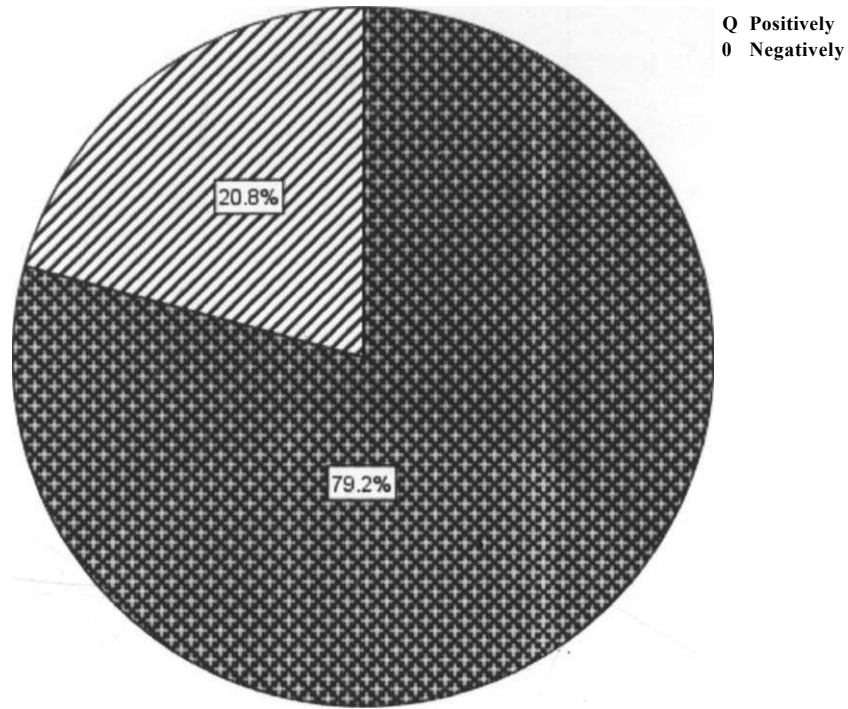


Figure 4.12. How possession of a room affects students' studies

As presented in Figure 4.12, approximately 79.2% of those under study indicated that their state of possessing a room affect them positively towards study while 20.8% said that they are affected negatively for not having a room in the university hostels.

4.8.2. Adequacy of resources in relation to student population

The study sought to find out the rate of adequacy of the resources provided in university campus in relation to the student population. The findings were as presented in Table 4.12.

Rating	Very Adequate		Adequate		Inadequate		Very inadequate	
	Rate	%	Rate	%	Rate	%	Rate	%
Lecture halls	24	6.5	309	83.5	25	6.8	12	3.2
Hostels	17	4.6	96	25.9	239	64.6	18	4.9
Dining	22	5.9	104	28.1	202	54.6	42	11.4
Playing ground	16	4.3	90	24.3	252	68.1	12	3.2
Library space	5	1.4	247	66.8	98	26.5	20	5.4
Computer rooms	13	3.5	52	14.1	287	77.6	18	4.9

Table 4.12 Rate of adequacy of the resources for undergraduates

Approximately 83.5% of the 370 stated that lecture halls are adequate, 6.5% indicated that they are very adequate, 6.8% felt that they are inadequate while 3.2% said they are very inadequate.

On the hostels rating, 64.6% indicated that they are inadequate, 25.9% said they are adequate, 4.6% felt that they are very adequate while 4.9% indicated that they are very inadequate. Almost the same reflection was presented for the dining or catering facilities. Approximately 54.6% indicated that the dining facilities are

inadequate, 28.1% said they are adequate, 5.9% said they are very adequate while the remaining 11.4% felt that they are very inadequate.

Approximately 68.1% of the respondents indicated that playing ground facilities were inadequate, 24.3% said they are adequate, 4.3% said they are very adequate while 3.2% said they are very inadequate. Another representation of 66.8% indicated that library space is adequate, 26.5% said that the space is inadequate, 1.4% said it is very adequate while 5.4% said the space is very inadequate. On the computer rooms rating, 77.6% indicated that the rooms are inadequate, 14.1% said they are adequate, 4.9% said they are very inadequate while 3.5% indicated that they are very adequate.

Rating	Very Adequate		Adequate		Inadequate		Very inadequate	
	Count	%	Count	%	Count	%	Count	%
Lecture halls	0	0	98	79.7	25	20.3	0	0
Hostels	0	0	34	27.6	89	72.4	0	0
Dining	0	0	52	42.3	65	52.8	6	4.9
Playing ground	0	0	47	38.2	76	61.8	0	0
Library space	35	28.5	82	66.7	6	4.9	0	0
Computer rooms	0	0	20	16.3	90	73.2	13	10.6

Table 4.13 Rate of adequacy of the resources for Masters of education

As indicated in Table 4.13, approximately 79.7% of the 123 post graduate respondents indicated that lecture halls are adequate while 20.3% said they are inadequate. Approximately 72.4% of the respondents indicated that hostels are inadequate while 27.6% said that they are adequate but only to the undergraduates. Of the total respondents in this category, 52.8% indicated that dining facilities are inadequate, 4.9% said they are very inadequate while 42.3% said they are adequate.

Approximately 61.8% of the respondents indicated that playing ground facilities are inadequate while 38.2% said that the facilities are adequate. A significant percentage of 66.7% indicated that library space is adequate for the available population, 28.5% indicated that the space very adequate and 4.9% felt that the space is inadequate. When asked to rate the adequacy of computer rooms, 73.2% stated that they are inadequate, 16.3% said they are adequate while 10.6% indicated that available computer rooms are very inadequate.

CHAPTER FIVE

SUMMARY OF STUDY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter focuses on summary, conclusion and recommendations based on the findings of the study which sought to analyze institutional capacities influencing quality education provision in public universities: case of school of education, University of Nairobi, Kenya. This is done under the guidance of four objectives which guided the study to draw its summary, conclusions and major recommendations.

5.2. Summary of the study

The purpose of the study was to analyze institutional capacities influencing quality education provision in public universities: case of school of education, University of Nairobi, Kenya. The study was guided by four objectives. The first one was to assess how lecturer-student ratio influence provision of quality education in public universities in Kenya, the second one was to examine how internet access level influences provision of quality education in public universities in Kenya. The third objective was to assess how the availability of teaching-learning resources influence provision of quality education in public universities in Kenya and the last one, was to analyze how the adequacy of physical facilities influences provision of quality education in public universities in Kenya.

The study adopted Human Capital Theory developed by Schultz in 1960 to gather both qualitative and quantitative data. The target population constituted of 2,467 students in the categories of: Master of education 616, bachelor of education arts (1851) and the dean school of education. Therefore a total of 2,468 respondents form target population. Data was collected using questionnaires for undergraduate and postgraduate students in the school of education, interview schedules for the dean and observation schedules for the learning facilities. Both purposive and simple random sampling techniques were employed to get the sample sizes. Descriptive statistics were used for data analysis and results presented using tables, frequencies, pie charts and bar graphs.

5.2.1. Background information

There was a fair representation of both genders where for undergraduate students female respondents constituted of 54.9% and at the postgraduate level the male respondents accounted for 54.5%. When it came to the academic year representation, there was a very fair representation of the respondents across all the academic years. For the undergraduate students they all ranged between 91 and 95 respondents for the four year. For the postgraduate respondents first year students were 65 while second years were 58 respondents. This indicated a very fair representation of the groups to ensure all-inclusive findings.

5.2.2. Lecturer-student ratio

The study found out that over 78% of the undergraduate students feel that the lecturers are available for individualized assistance and tutorials. The postgraduate students over 54% felt that the lecturers were not available for the individualized assistance and tutorials. The study also found out that a significant proportion of over 70% of the undergraduate students rate the lecturer attendance on average as below 50% mark. This was the opposite for postgraduate students who feel that lecturers' attendance is above 50% mark with a support of over 88%. On checking on the rate of coverage of course content per unit by lecturers per semester, the study revealed that undergraduate students rate them as being above average with a representation of over 62%. Dean school of education observes that, the ratio of lecturer to undergraduates to be 1: 100 on average but ratio varies with specialization and nature of the course where core courses have higher student lecture ratio while for electives the ratio is low. For the postgraduate students, they also felt the same with a support of over 82%. The Dean noted that the lecturer student ratio for postgraduate students varies from 1:1 to about 1:50. To guarantee quality, both masters and undergraduate programmes must have adequate teaching staff committed to ensuring full content coverage, individualized assistance and tutorials.

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5.2.3. Internet access

The study found out that over 58% of both undergraduate and postgraduate students use internet daily, and they access it in the computer laboratories with a representation of over 53%. The study also revealed that there are some students who do not use internet at all. Significant proportions use the internet weekly and monthly in their personal internet facilities, cyber cafes, lecture rooms internet ports, library internet facilities or even at the hostels.

Internet accessibility was rated as inadequate with an over 48% representation to the down falls. This was explained where in the hostels, library or computer laboratories the signal strength was said to be poor. A significant percentage of over 94% indicated that this inadequacy in the internet accessibility influences their performance in course work negatively. This was for both the undergraduate and postgraduate students.

5.2.4. Availability of teaching - learning resources

The study found out that the textbooks are rated as inadequate with more than 54% of the undergraduates and over 73% of the postgraduate students. Computers are also rated as inadequate with a representation of over 50% both the undergraduate and postgraduate groups. Availability of projectors was also rated as inadequate and a bigger percentage of over 45% indicating that they are very inadequate. Connection ports are also said to be inadequate by the two groups though a significant proportion of around 47% felt that the ones available are adequate.

Both the undergraduate and the postgraduate students felt that the availability of the whiteboards are relatively adequate with a presentation of around 51%. Audio visual equipment were ranked as being very inadequate by over 54% of the respondents. However tables and chairs were said to be adequate with over 89% of the respondents supporting their adequacy.

5.2.5. Adequacy of physical facilities

The study found out that there was no postgraduate given accommodation in the university and over 79% of the undergraduate students possess rooms in the university hostels. Over 79% of the respondents indicated that their condition of possession or lack of possession of a room affected their course of study at the university. Those who didn't have the room at the university, over 79% of them said that this state affects them negatively on their course work. Both the undergraduate and postgraduate students indicated that the lecture halls are adequate for the prevailing population with a support of over 83%.

The study also revealed that over 72% of the postgraduate indicated that the hostels are not adequate while over 64% of the undergraduate students feel the same. The study also found out that over 54% feel that the catering facilities are not enough. A significant proportion of 68% felt that the playground facilities are also inadequate. Over 66% of the students feel that the library space available is adequate for the prevailing population but 77% indicated that the computer rooms are inadequate considering the current student population.

5.3 Conclusions

On the basis of the findings of this study, the following conclusions were drawn.

First, it was established that lecturers are available for individualized assistance and tutorials for undergraduate students in the school of education. However for the master of education students, the lecturers are not available for individualized assistance and tutorials. In both the undergraduate and postgraduate studies, the lecturers' attendance per unit and semester was as expected being above average. The study also established that the lecturers cover the course content as planned per unit and semester being ranked as above average.

On the second objective, 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 and using their own personal gadgets like mobile devices. The lecturers are able to access internet in their various offices using either wireless connectivity or ports. The study also concludes that internet accessibility is not very adequate due to the many down falls in internet speeds and limited access. The study also found out that the learners with disabilities have not been well addressed on their needs for special computers not being in place and relevant software. The study also concludes that this influences the performance of the course work for the students.

On the third objective, the study concludes that the teaching learning resources are available but not adequate. The textbooks and computers are just enough to be shared among the students for both undergraduate and postgraduate students. The study also concludes that there are just enough projectors, whiteboards and audio visual equipment to be used for very small class sizes. There is no smart board in the school of education.

On the last objective, the study concludes that the physical facilities are available but not adequate. The postgraduate students are not given accommodation in the university hostels but majority of the undergraduates are. Inadequacy of the hostel rooms affects the performance of the students negatively. The study also concludes that the library space is adequate for the prevailing student population.

The study generally concludes that lecturer student ratio, internet access, availability of teaching learning resources and adequacy of physical facilities as institutional capacity factors influence quality education provision in public universities.

5.4. Recommendations on the research findings

Based on the findings of the study, the following recommendations are made;

First, the school of education ought to add on the teaching staff to increase the lecturer student ratio. This will ensure that the students get individualized and personalized tutorials. This is because this is a main factor to consider when looking on the quality of education in any education institution.

Secondly, the study recommends that there is need to add more computer laboratories because many students use them to access to internet. There is also a need to add internet ports in the lecture rooms to enhance connectivity even when the wireless connectivity is limited. Students with disabilities should be provided with computers that are customized to their need, including the appropriate software. The library materials also need to be customized to ensure that they can access all electronic materials with ease.

Thirdly, the study recommends that lecture halls need better furniture, public address system, projectors (electronic equipment that facilitate projection by lecturers) smart boards, proper lighting. There is need to move on from using black and white board to smart boards.

Fourth, hostels need to be increased and the existing ones need renovation. There is also need for more classroom space, offices and tutorial space. This is a main concern in the provision of quality of education.

5.5 Recommendations for further research

More studies should be done in the following areas;

First, Institutional capacity influencing quality education provision in University of Nairobi, Kenya

Second, Institutional capacity influencing quality education provision in Public universities in Kenya

Third, Institutional capacity influencing quality education provision in College of education and external studies, University of Nairobi, Kenya

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APPENDICES

APPENDIX I: Letter of introduction

**Mola Julius Shiundu,
P.O. box 609-50102,
Mumias.**

**Dean School of Education,
University of Nairobi.**

**P.o. box 92,
Kikuyu.**

Dear Sir/Madam,

RE: PERMISSION TO CONDUCT RESEARCH

I am a master of education student in the department of educational administration and planning specializing in economics of education at the University of Nairobi.

I am conducting a research on "institutional capacities on the provision of quality of education in the school of education, university of Nairobi, Kenya". Kindly permit me to collect data from your school. Data collected will be held with at most confidentiality and used for the academic purposes only.

Your support will be appreciated.

Yours sincerely,

" Julius Shii/ndu Mola

APPENDIX II: Questionnaire for students

Instructions: Please fill this questionnaire as accurately as possible. Your responses will be treated with utmost confidence and used only for academic purpose. **Do not write your name anywhere in this questionnaire.**

SECTION A: BACKGROUND INFORMATION

1. What is your gender? Male Female

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2. What is your course of study? Bachelor's degree Master's degree

3. What is your year of study? 1st year 2nd year 3rd year 4th year

SECTION B: LECTURER-STUDENT RATIO

4. Are lecturers available for individualized assistance and tutorials?

Yes No

5. Out of total number of lecture hours per unit per semester, how would you rate lecturers' attendance on average? below 50% above 50%

6. How would you rate coverage of course content per unit by lecturers per semester? below average average above average

SECTION C: INTERNET ACCESS

7. How often do you use internet for educational purposes? Daily
weekly monthly not at all
8. While at the campus, where do you frequently access internet from for
your course work purposes?
- Computer laboratories Lecture rooms internet ports Library
internet facilities Hostels Cyber cafe Personal internet
facility/gadget
9. How would you rate the level of internet accessibility within the campus? [
 Very adequate adequate Not adequate uncertain
10. Do you think internet accessibility influences your performance in course
work? Yes No

SECTION D: AVAILABILITY OF TEACHING-LEARNING RESOURCES

11. In the table below, rate the adequacy level of the teaching-learning resources at the school of education, university of Nairobi as provided.

Resources	Very Adequate	Adequate	Inadequate	Very inadequate
Textbooks				
Computers for use by students		“		
Projectors				
Internet connections ports				
White boards				
Audio-visual equipment				
Tables and chairs				

SECTION E: ADEQUACY OF PHYSICAL FACILITIES

12. (a) Do you have accommodation room within university hostels?

Yes No

(b) How does this affect you in the course of study at this university?

positively negatively

13. In the table below, rate the adequacy of the resources provided at this university campus in relation to student population

Resources	Very Adequate	Adequate	Inadequate	Very inadequate
Lecture halls				
Accommodation facilities/hostels				
Catering facilities - dining				
Play ground				
Library space				
Computer rooms				

APPENDIX III: Interview schedule for dean school of education

Purpose: The purpose of this interview schedule is to find out how institutional capacities influence the provision of quality education in the school of education, university of Nairobi, Kenya.

1. What is the current lecturer- student ratio in this school and do you consider the ratio as appropriate in ensuring quality of education within the school? How do you handle the understaffing issue as a school, if any?
2. Comment on connectivity of information and communication technology in the school of education. [Probe on adequacy of computer and internet access by students and academic staff and influence on quality education).
3. What is your opinion on availability of teaching learning resources within the school? [] available and adequate [] available but not adequate. If available but not adequate, how does your school manage the situation? How does the current level of teaching-learning resources influence provision of quality of education?
4. Based on current level of students and programmes offered, comment on adequacy of physical facilities? [Probe on hostels, library space, and computer laboratories, and lecture halls]. What other critical challenges do you experienced in your school with regard to academic staff, teaching learning resources, physical facilities, and internet accessibility. Please

give a brief explanation of the mitigation measures in place for each challenge.

Thank you for participating

APPENDIX IV: Observation Schedule

Introduction

The following areas will be observed and commended accordingly.

Item	Adequate	Not adequate	Comments
LECTURE HALL			
Space available			
Address system			
Tables and chairs			
PHYSICAL FACILITIES			
Lecture halls			
Staff offices			
Student hostels			
Play ground			
TEACHING-LEARNING RESOURCES			
Audio-visual equipment			
White boards			
Student Computers			
Internet connections ports (within lecture halls)			

APPENDIX V: Research permit

**THIS IS TO CERTIFY THAT:
MR. JULIUS SHIUNDU MOLA
of UNIVWESITY OF NAIROBI, 0-50100
KAKAMEGA.has been permitted to
conduct research in Nairobi County**

**on the topic: INSTITUTIONAL
CAPACITIES INFLUENCING PROVISION
OF QUALITY EDUCATION IN PUBLIC
UNIVERSITIES IN KENYA: A CASE OF
SCHOOL OF EDUCATION,UNIVERSITY OF
NAIROBI**

**for the period ending:
20th November,2015**

**Permit No : NACOSTI/P/15/6889/6
Date Of Issue : 16th July.2015
Fee Recieved :Ksh 1,000**



Signature of Permit Holder

Mr. Julius Shiundu Mola
Researcher

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to



**National Commission for Scie
Technology and Innovatioi**

APPENDIX VI: Authorization letter



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Telephone: '254-20-2213471,
2241349,310571,22*9420
Fax: +254-20-318245, 318249
Email: secretary@rwcosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

Floor, Uttlii House
Uttlii Highway
PO. Bo* 30623-00100
NAIROBI-KENYA

ReC. No.

16th July, 2015

NACOSTI/P/15/6889/6791

Julius Shiundu Mola
University of Nairobi
P.O Box 30197-00100
NAIROBI.

* •

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Institutional capacities influencing provision of quality education in public universities in Kenya: A case of School of Education, University of Nairobi,"* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for a period ending **20th November, 2015.**

You are advised to report to **the Vice Chancellor, University of Nairobi, the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

A handwritten signature in dark ink, appearing to read 'M. K. Rucurr', is written over the typed name and title.

**DR. M. K. Rucurr, PhD, HSC.
DIRECTOR-GENERAL/CEO**

Copy to:

The Vice Chancellor
University of Nairobi.

The County Commissioner
Nairobi County.