

**THE QUALITY QUANTITY TRADE-OFF: IMPLICATIONS
OF EXPANDED ENROLMENTS AT TWO OF ZAMBIA'S
PUBLIC UNIVERSITIES**

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Declaration

I, Ferdinand Mwaka Chipindi, do solemnly declare that this dissertation represents my own work and has not been submitted for a degree at this or another University.

Signed:  Date: 23/03/09

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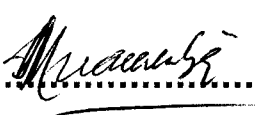
Certificate of Approval

This dissertation of Ferdinand Mwaka Chipindi is approved as fulfilling part of the requirements for the award of the degree of Master of Education in Educational Administration by the University of Zambia.

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Abstract

Available literature indicates that quantitative expansion of an education system is often accompanied by qualitative deterioration. The present study investigated the implications of the enormously expanded enrolments at two of Zambia's public universities. The dissertation hoped to add to existing knowledge in the field by using a qualitative in-depth case study approach of the University of Zambia (UNZA) and the Copperbelt University (CBU). It tried to provide insight into the problems that arise from expanded enrolments unaccompanied by a proportionate expansion of infrastructure. The research attempted to identify the impact of expanded enrolment of students on the teaching and research activities of the two universities as well as on the learning situations of the students. The study was undertaken in order to bring out the quality-quantity implications of the huge student populations at UNZA and CBU. Qualitative and quantitative methods of enquiry were used including recorded interviews as well as paper and pencil questionnaires. Analysis of the data revealed a number of fundamental bruises occasioned on quality in the process of quantitative expansion. It was found that due to increased workload, the lecturers increasingly failed to meet their mandatory research agendas. The study also found that expanded enrolments of students had outstripped the collective capacity of the two institutions to accommodate the admitted students. The contact between students and their lecturers was found to be increasingly unsatisfactory. The causes of these problems were investigated and finally suggestions were made for the elimination of the negative implications of expanded enrolments unaccompanied by corresponding expansion of infrastructure.

To Henry my father and Catherine my mother who have never tired from educating me at a great cost to themselves; my late biological parents Hadrianus and Febby Chipindi, who though long since deceased, have inspired in me an unquenchable spirit of intellectual inquiry, may the almighty God rest their souls in eternal peace.

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Acronyms/Abbreviations

CBU	: The Copperbelt University
GRZ	: The Government of the Republic of Zambia
IMF	: The International Monetary Fund
M.Ed	: The Degree of Master of Education
MMD	: The Movement for Multiparty Democracy
MOE	: The Ministry of Education
NACTE	: National Council for Technical Education
NRDC	: Natural Resources Development College
NRG	: Northern Rhodesian Government
PhD	: Doctorate of Philosophy
SDF	: Staff Development Fellow
UN	: The United Nations Organization
UNIP	: United National Independence Party
UNZA	: The University of Zambia
WB	: The International Bank for Reconstruction and Development or the World Bank

Chapter One: Introduction

1.1 Background

In the 1998/1999 academic year the University of Zambia introduced the self sponsorship individual admission scheme. This scheme admitted students with relatively lower entry points than those who were being admitted under the GRZ sponsorship scheme. According to UNZA (2003), this policy resolution was conceived of in the spirit of promoting equity in the provision of university education and, additionally as a way of mitigating and strengthening the financial resource base for the admitting schools *viz* Education, Natural Sciences and Humanities and Social Sciences. From then onwards enrolment levels at UNZA and CBU posted steep rises as revealed by the yearly ***Educational Statistical Bulletin*** (MOE, 2007).

Public university education in Zambia is premised on two national goals of university education as enshrined in the policy document, (MOE, 1996) namely:

- The universities must be responsive to the real needs of Zambia; and
- The universities must, on merit, win the respect and proper recognition of the university world.

This implies that the universities have a fundamental responsibility to progress towards being tools of national economic development (Onyango, 1972). The universities in Zambia are intricately linked to the skilled human resource requirements of the Republic. It,

accordingly, follows that university education has, by far, been the largest beneficiary of the total government expenditure on education (Kelly, 1991). The amount of money that accrues to UNZA and CBU in terms of grants, loans and other forms of budgetary allocations has been disproportionately higher than what is expended on other sub-sectors within the Zambian education system. The monies so expended are drawn from a variety of internal and external sources, *inter alia*, multilateral and bilateral donors, and mostly from local taxpayers (MOE, 1996). Common sense would seem to suggest that the tax payers have both an indirect and expressed interest in the economic merit of the academic pursuits at the public funded universities in Zambia and the value of the university graduates. The tax payers would be desirous to know whether the two public universities were making an effective and meaningful contribution to the development of society (MOE, 1996). This effectiveness can be expressed in terms of the quality of the two universities' products- that is the graduates- research undertakings and service to the nation.

1.2 The Lockwood Report

In 1963, shortly after the fall of the Federation of Rhodesia and Nyasaland, a high-powered Commission was established to study the feasibility of establishing a university at Lusaka. This Commission, led by Sir Lockwood, unanimously agreed that the long dreamt about establishment of a university at Lusaka should finally materialize. The recommendations of the Committee were bound together into what became known as the **Lockwood Report**. The Report made a number of landmark recommendations which, since then, have had important implications for university

education in Zambia. Firstly, the Report recommended a complete departure from the model that had shaped previous university establishments in the Third World. In this arrangement many African universities were paired or linked with other, (mostly European) universities in order to gain recognition from the university world (Ashby, 1974). But the **Lockwood Report** pointed out that right from the start the university to be established at Lusaka was to be a university in its own right. By implication this meant that the university would break with the previous tradition of being paired with other foreign universities.

This provision laid the foundation for the respect and recognition which UNZA graduates were (and continue to) receive in the world of work. The quality of University of Zambia graduates has been so undisputable as to make them readily employable (and highly marketable) in several lucrative occupations in several countries across the globe. According to the **Lockwood Report** the university to be established at Lusaka was to combine practical service to the nation with fulfillment of the historical purposes of a university.

1.3 The Commencement of University Education in Zambia

The origins of university education in Zambia can be traced to March, 1966 when the first classes commenced at the University of Zambia (Kelly, 1991:171). The University of Zambia, the larger (and in fact the parent) of the public universities in Zambia was established in 1966 with 312 full-time students (Mwanakatwe, 1974). The establishment of the university was the culmination of years of planning and counter-planning in which the main

contention was about whether the university should be located in Lusaka or at Salisbury now Harare. As the renowned educationist, John Mwanakatwe, has correctly pointed out, there had been eager 'expectation on the part of the people of Zambia...' to establish their own university which would be at 'the peak of the educational ladder' (Mwanakatwe, 1974:173). Initial attempts to establish a university at Lusaka had been thwarted by the rival aspirations of the white settlers of modern-day Zimbabwe who were bitterly opposed to the location of the federal university at any site other than Salisbury.

1.4 The Public Universities and the Rapid Growth of the Population In Zambia

At the time of the creation of the University of Zambia, the country had an estimated population of one and a half million. In 2007 the population of Zambia was estimated at eleven (11) million citizens. This means that since the establishment of the first university in Zambia, the number of eligible university entrants had posted significant increases as had the elementary and secondary education sub-sectors. Accordingly, over the years the education system had witnessed tremendous expansion of the primary and secondary sectors of the education system. The UNIP government, for example, is known to have managed to build at least one secondary school in all the districts of Zambia. Most of the secondary schools were offering 'O level' education which had long been the basic admission requirement at both CBU and UNZA. This state of affairs has over the years occasioned an increasingly strong demand on the country's tertiary- and in particular university-education system. The expansion of the population of eligible

university entrants elicited a number of policy responses. Cardinal among these responses was the unprecedented expansion of enrolments at both UNZA and CBU. For example at the time UNZA was created in 1966 it had only about 312 students. This contrasts sharply with the picture as at 1994 when the university had about 4,592 students (MOE, 1996:98); and 2003, 2004 and 2005 when the university had a student population of 7,558, 8,471 and 9,250 respectively (MOE,2005:107). As at November 2007, the students at UNZA were understood to number 10,107, as compared to 7,558 in 2003 (MOE, 2007:116): At CBU the figure is known to have been 4,155 in 2007 as compared to 2,534 in 2003 (MOE, 2007:117); 3,090 in 2004; 3,524 in 2005 and 4,014 in 2006 (MOE, 2006:117).

These significant leaps in student enrolment have, to a larger extent, been unaccompanied by a proportionate expansion of the infrastructural and resource capacities of the two universities. The quality-quantity implications of this state of affairs have not been studied closely. It may benefit the tax payers to know whether the graduates, produced by the public universities at an enormous cost to the tax payers, are of the satisfactory quality or whether the university graduates are able 'to respond flexibly, creatively and competently to the responsibilities that are placed on their shoulders' (Kelly, 1991:3).The 'evident quality of the men and women, to whom degrees are [to be] awarded, needs to be appraised' (Northern Rhodesian Government [NRG], 1964:2).

Critical analysis might seem to suggest that it may be useful to establish what would benefit the country more between: giving high

quality university education to a few citizens; and offering university education on a large scale, with the very real possibility that quality might be compromised by quantity. An increase in the student population, unaccompanied (as in this case) by a proportionate expansion of the infrastructural and resource capacities of the learning institutions, has serious implications on the quality of the products. Whilst the exact figures of student enrolments may be easily computable, as may also the staff recruitment and funding patterns, it is not quite as easy to determine the exact quality of university graduates produced from amidst an expanded student population. Indeed previous studies undertaken on CBU and UNZA have focused on other aspects of the problem quite aside from quality (Bardoursville, 1984 Kashoki, 1985; Nyirenda, 1994; Mweemba, 2003; Meki, 2005). The present study hoped to fill in these knowledge gaps.

1.5 Statement of the Problem

Since its birth in 1964 the Republic of Zambia has recorded significant increases in the population of its citizens. This has occasioned a serious strain on the public goods and services as more and more people desire to receive or procure these services. The growth of the population has given rise to the need for more infrastructure to cater for the growing population. One area in which this need has been more felt has been the Education sector. Accordingly, since independence the elementary and secondary school systems have undergone immense expansion. As the numbers of schools have been expanding so have the numbers of eligible university entrants. The availability, from independence until late 2007, of only two public Universities in Zambia meant that

the public University system had to be overstretched in order to accommodate more and more entrants. Therefore, the student populations at two of Zambia's public universities have been significantly rising since 1966. The problem is that the impact of these tremendously expanded enrolments, on the quality of Public University Education in Zambia is unknown. This study hopes to help in solving this problem by bringing to light the implications of expanded enrolments at two of Zambia's public universities.

1.6 Purpose of the Study

The present study seeks to gauge the impact of expanded enrolments at CBU and UNZA on the quality of education offered and to document any additional deficiencies arising from vastly expanded enrolments.

1.7 Research Objectives

1. To assess the impact of the huge student population on the quality of public university education in Zambia;
2. To discern the impact of the huge student populations on the Lecturers' research activities;
3. To assess the impact of the huge student populations on the Lecturers' teaching activities; and
4. To appraise the impact of the expanded enrolments on the students at CBU and UNZA.

1.8 Research Questions

1. What has been the impact of the huge student population on the quality of public university education in Zambia?

2. How have the expanded student populations at UNZA and CBU affected the Lecturers' research activities?
3. How have the huge student populations affected the teaching activities at the two universities?
4. What has been the impact of the expanded enrolments at UNZA and CBU on the students?

1.9 Significance of the Study

It is hoped that the findings of this study may help the authorities at the two public universities and in the Ministry of Education to have a clear understanding of the implications of the enormously expanded university enrolments on the quality of education at the two institutions.

Chapter Two: Literature Review

2.1 'Quality' in Education

Literature has shown that there are many different people interested in how education should be run, what constitutes quality in education (Harvey and Green, 1993; Sallis, 1993) and how quality should be measured (Cheng and Tam, 1997). The issue of quality in education has generated keen interest among researchers. A number of research studies focusing on quality in education show that there is little agreement among researchers in the field of Education about the exact conceptions of quality. An attempt will be made below to operationally define this concept in order to try to create a common understanding of its meaning in the context of this study. Quality is a generally relative term. It is understood differently by different scholars. Some scholars opt to conceive of quality in terms of inputs into a system or process or outputs of the system (Beeby, 1966 and Kelly, 1991). For example, Lungwangwa (1984) approaches the concept of 'quality' from two standpoints dependent on both internal and external measurement criteria.

The benchmarks of a quality education system may include the size of the classes, teacher-morale, availability of teaching and learning resources, the length of contact between instructor and learners (Kelly, 1991). The aforementioned can be classified, according to Meki (2005), as input indicators. According to Meki, output indicators refer to the acquisition of measurable skills like reading, writing, numeracy, including a great range of facts about history, geography hygiene and many others. Although this description of

quality appears to be much more inclined towards the primary and secondary levels of the Educational stratum; it, *mutatis-mutandis*, has compelling relevance to the present study.

A survey of literature reveals that 'quality' is one of the most widely defined terms:

- a high degree of goodness (Procter, 1978);
- doing the right things right (Deming, 1998);
- degree of fit between what a customer wants and what a customer gets (Peninsula Technikon, 2001); and
- specified degree of excellence (Dar-es-Salaam Maritime Institute, 2002); and
- the level of satisfaction with the effectiveness of institutions to provide training, which conforms to standards and achieves excellence demanded and contributed to by learners and other stakeholders (NACTE, 2003).

From the above definitions it can be pointed out that quality has to do with three important catchwords namely degree, excellence and satisfaction. The term quality can therefore be taken to mean the extent to which consumers of products or services are satisfied that these have met the prescribed degree of excellence.

According to Sallis (1996:13) 'Quality products are things of perfection made with no expense spared. They are valuable and convey prestige to the owners'. Sallis goes on to point out that quality is perplexing to define and often difficult to measure: 'one person's idea of quality often conflicts with another... [and there is a lot of frustration] and time wasting associated with its absence' (Sallis, 1996:1). Meanwhile, Peters and Austin (1985:101) opine

that 'Quality is about passion and Pride'. However in the present study quality was conceived of as a concept that encompassed a number of variables. In the first place the study drew heavily on the research reports of such scholars as Armitage *et al* (1986) who list a number of variables associated with quality. In this discussion quality was looked at as evolving around several fundamental variables namely: availability of learning and teaching inputs; the students' access to well furnished lodging facilities; availability of reading space as well as fairly recent books, journals and other academic literature; ample time for individualized contact between Lecturers and their respective students; the qualification and expertise of the lecturers as reflected in their respective positions on the academic ladder; accurate and complete assessment packages for students with ample time for lecturers to effectively, justly and objectively evaluate their students; and a learning and teaching process that vibrates with energy and that is devoid of serious shortcomings such as lack of desks or chairs, poor ventilation and lack of lecturer audibility due to overcrowding. This was the yardstick on which quality was measured in this study. Any deduction from the above variable was considered a violation of quality as conceived in the present study. The above were the conditions and facilities that were considered necessary for quality learning to take place at two of Zambia's public universities.

2.2 Quality and Quantity

The two concepts are interrelated. They work hand in hand but more often than not authorities especially in education stress the need to always strike a balance between the two. According to Goma (1984) the education system of any country should thrive towards the development of the entire citizenry in that country. Goma however cautions that development should not only be about quantitative changes but also qualitative ones. In the study of the universities' contribution to national development, many authorities tend to emphasize the quantitative aspects of the universities' contributions to national development but Goma offers useful caution:

If the University [of Zambia] is to make meaningful contributions to the development of our country, it cannot do so from a position of mediocrity. If the training of its graduates is poor in quality, their contribution to society will be inferior and counter-productive. It is therefore essential to demand excellence in the performance of both the staff and the students of the University...to establish an intellectual and cultural strength ...to stand apart from sheer utilitarianism (Goma, 1984:71).

On page 72 Of the same book, Professor Goma goes on to point out that: 'if the University is to carry out its mission effectively, it must work in an atmosphere that makes this possible'. What is implied by the latter statement is that the learning of the students should not be deficient of certain ideal circumstances, the reading materials ought to be available and accessible; the students should be able to relax in well furnished rooms after a hard day's work, there should be abundant reading space in the libraries for students to carry out their reading activities with full concentration and there

should be enough teaching staff in the universities to reduce instances where students are deprived of satisfactory individualized contact with their respective instructors in the various courses in the Universities. When all these variables are either absent or endangered the quality of education at the Universities begins to be brought into question. Such concerns as these above were excellently summed up by Professor Goma who said:

The [Public] University must never be allowed to abandon the idea of excellence or the pursuit of the first rate in its effort to serve large numbers and in its dedication to meet the needs of Zambia. Excellence should not be sacrificed to mediocrity... the needs of Zambia demand that those who come out of the university should be men and women of integrity, competent and capable of facing new problems thoughtfully and objectively with the desire to find constructive solutions to the problems rather than augment partisan controversy... in addition to producing high level manpower [*sic*], the University must educate the whole man (Goma, 1984:45).

These words were spoken in 1984 when the University of Zambia was the only public University in Zambia. The caution on the need to safeguard the quality of public University education in Zambia was very timely indeed. But one may be given to wonder whether this caution was not thrown to the winds by the turn of the Twentieth Century when the combined student populations at two of Zambia's public universities began to post tremendous rises, rising from under 9,000 (2,534 at CBU and 7,558 at UNZA) in 2003 to approximately 15,000 (10,107 at UNZA and 4,155 at CBU) in 2007, which represented a growth of approximately 67% (MOE, 2005:107 and MOE, 2007:117). The picture was aggravated by the fact that no significant infrastructural and institutional expansions to the public University system were attempted in the periods of

expanded enrolments. This certainly brought the quality of education at the two universities into serious question, a state of affairs which caused one Head of State to remark that the two universities were producing 'half- baked' graduates: the correctness of this blunt remark is yet to be disproved.

2.3 The Universities and the Human Resource Needs of Zambia

Chokani (1984) did an excellent research on the contribution of the University of Zambia to the human resource needs of the Republic of Zambia. Chokani used enrolment patterns at UNZA between 1966 and 1980 to interpret the performance of the university in the production of human resources for the economy. The study revealed that the government of Zambia had oriented the University system towards specific numeric targets in terms of the human resource needs of the country. The University of Zambia enrolment is said to have almost quadrupled in three years, rising from 312 students in 1966 to about 1,184 students in 1970 (Chokani,1985:7). Overall enrolment at the University of Zambia grew by over 1000% from 312 students in 1966 to approximately 3,405 in 1980. Critical analysis might demand that the quality-quantity implications of these expanded enrolments be closely studied. However the research undertakings made by scholars at UNZA and CBU since the founding of the University of Zambia seem to have focused on other aspects rather than on the impact on quality of quantitative expansions in university enrolments.

Chokani's study further sought to isolate the factors possibly responsible for the apparent lapse in the expansion of infrastructure at UNZA. In 1965, he points out; there was a Unilateral Declaration of Independence (UDI) in the then Southern Rhodesia. The UDI had

tremendous ramifications for various aspects of Zambian life. For instance the Zambia-Rhodesia border, on which Zambia solely depended for her imports and exports, had to be closed. This turn of events compelled the government of Zambia to embark on an ambitious 're-routing' exercise. The situation was compounded by the fact that Zambia was surrounded by 'hostile states' (countries in which liberation wars were still going on). The only country among Zambia's neighbors that could be said to have been friendly at the time was Tanzania. Zambia, therefore, had every compelling reason to establish her routes to the sea through this country. Such crisis-ameliorative undertakings as these resulted in the significant scaling down of other national Development Programmes not even excepting university education. Citing MOE statistics, Chokani (1985:39) notes that capital expenditure had at one time to be cut by 32%. The situation was aggravated by the world-wide economic recession that is known to have started around the early seventies. The prices of copper, Zambia's leading foreign exchange earner, had deteriorated rapidly. Hence the state had no money to expand the infrastructure at UNZA. At one point the Vice Chancellor of UNZA decreed that Lusaka-based students should live at home in order to free up some accommodation for non-Lusaka-based students (Chokani, 1985:40). But all such moves were fiercely opposed by the students and their parents. In the final analysis, the university had to restrict student numbers to the availability of student bed spaces. In the study under review Chokani recommended that the number of bed spaces should be increased through an expansion of the federal structure of the university. He further recommended that the NRDC and Evelyn Hone College should be incorporated into the federal structure of the University

that time which included the Copperbelt campus, now CBU in order to create more space for the students. Much as the population of citizens, in need was expanding rapidly, the university could not, as at 1980, take in any more students. The caution exercised at that time was to be thrown to the winds in the 1998/9 academic year when the number of eligible university entrants was exceedingly high and the university was compelled to enroll nearly thrice the number of students as it could take on.

2.4 The African University and Socio-Economic Development

In his paper Kashoki (1985) evaluated the general role of an African university in economic and social development. This scholar wittingly opined that the African university should 'take a lead in and play a prominent role in bringing about Africa's all-round development' (Kashoki, 1985:20). He further envisages the African university as an arbitrator of African liberation. In viewing the African university as a carrier of civilization, Kashoki does by implication, touch on the issue of 'Quality'. Tembo (1978:31) remarks that 'unless African universities are transformed in such a way that they reflect African conditions of life, they will never contribute effectively to social reform'. Nor would the public universities in Zambia effectively and meaningfully contribute to economic development unless instruction and research exist in conditions that do not compromise quality. If the quality of education is eroded a university may not hope to discharge the prescribed functions of *inter-alia* bringing about 'the reform of society...as the principal agent of social reform' (Chokani, 1985:1).

2.5 'Trade-off' Issues in Education

Studies elsewhere have shown that one major way in which quality can be compromised in education is through overcrowded classrooms and school campuses. Duraisamy *et-al* (2004) wrote of a 'trade-off' between quality and quantity in primary and secondary education in developing countries in general and in India in particular. This study found that as enrolments increase at primary and secondary levels of the Indian educational stratum a number of implications arise. The study had a three-fold task, namely: to find out whether increase in educational quantity comes at the expense of quality; to investigate the impact of expanded enrolments on examination results of pupils and; to find out what policies could diminish the quality- quantity trade-off. The study found that much of the increase in enrolments was due to deliberate government policies aimed at empowering the citizenry through education. It was further found that because the educational systems in many Third-World countries depended heavily on public funding and because resources did not keep up with enrolments, conditions of schooling deteriorated sharply. Budget constraints would normally give rise to a quality-quantity-trade-off. There is no compelling reason to doubt the applicability of the fore-going to the Zambian context. The issues raised in Duraisamy *et al's* paper serve as a mirror to the rest of the Third World and to Zambia in particular. The quality-quantity implications of the rising student populations at Zambia's public universities ought to be studied very closely, hence the present study.

Additionally Wilson (1993) tried to evaluate the adjustment problems faced by students at the University of Zambia. Wilson (1993) opined that sometimes the presence of huge numbers of students had the potential to lead to loss of valuable teaching time. One might argue that riotous behavior when carried out by large numbers of students can be potentially hazardous and challenging to contain. Having a smaller student population at UNZA arguably means that any unrest can be contained relatively easily. The opposite is true where the student population is very big. The presence of huge crowds of students can be said to be responsible for the loss of many hours of teaching, with a telling effect on quality.

Chapter Three:

Methodology

3.0 Overview

This study combined both qualitative and quantitative approaches; this was based on the researcher's recognition of the fact that when either of the approaches is used in exclusion of the other, it would have grave limitations and biases which would have been mitigated by a combination of the two approaches. As suggested by the title, this study sought to deal with two parallel, but closely related foci. The one theme was the issue of 'quality' at the two public universities in Zambia. The review of literature has clearly shown that the issue of quality in education evolves around two fundamental foci, namely the inputs into the system on one hand and the outputs from the system on the other hand. However this study concentrated on the input indicators of quality almost to the exclusion of output indicators. This line of analysis was dictated by the limits of practicality as well as material, financial and time constraints. The study of the output indicators of quality, however, remains a very viable option. As for now the researcher was content to limit this study to the input indicators of quality in university education. The second theme was the issue of 'quantity' in terms of enrollments at CBU and UNZA. By its very nature the study merited the use of both qualitative and quantitative approaches. The two approaches differ in terms of data collection and analysis. The quantitative method is more suited for collection and analysis of numeric and quantifiable data. The qualitative approach on the other hand is best suited for studies that are centered on non-numeric data.

3.1 Research Design

This study took the form of a survey. According to Becker and Harnet (1987) a survey is a research method which employs questioning as a strategy to elicit information. Accordingly, the study involved mainly asking a myriad of respondents for information which was then analyzed and interpreted as presented in the ensuing chapters.

3.2 Population

The target population for this study comprised all the products of the two public universities in Zambia mostly in form of human resources ready to be absorbed into the labor market, as well as the underlying processes that go into the making of these university graduates. The population further comprised all the producers (lecturers and principal officials) at the two public universities whose professed duty was to off load quality graduates onto the labour market. Additionally the study analyzed a number of courses in which there had been unmistakable manifestations of expanded enrolments. In short, the products, the process and the producers of public university education were the population of this study.

3.3 Study Sample and Sampling Procedure

The study was a survey of public university education in Zambia. According to the Australian Bureau of Statistics (2004) the purpose of sampling is to overcome the problems associated with the hugeness of the study population. A sample has, thus, got to be taken from the populations and estimates made about the total population based on information derived from the sample. It is helpful for the researcher to make his/her sample large enough to

give a good representation of the population and small enough to be manageable. The sample comprised 12 lecturers at UNZA and another eight from CBU; 50 students from CBU and another 150 from UNZA; eight Principal Officers at the universities (four at UNZA and four at CBU; and 15 courses at UNZA with populations of above 300 students and five courses at CBU with estimated student population of above 100 or those whose size in terms of student numbers had more than quadrupled since 1999; which courses could rationally be conceived of as bearing unmistakable manifestations of expanded enrolments.

Purposeful sampling was employed in the selection of the 20 lecturers from CBU and UNZA. According to Borg (1969), purposeful sampling is a procedure in which the respondents are carefully selected on the basis of certain informed criteria. In this study the lecturer--respondents were selected because they either, had been teaching at the universities for a sufficiently long period to have felt the impact of expanded enrolments on the academic activities at the two universities, or were otherwise in charge of courses which had student populations in excess of 300 students (in the case of UNZA) and 100 Students (in the case of CBU) or those courses at both universities whose student populations had quadrupled since 1999.

The selection of courses could not be said to have proceeded according to a fixed sampling procedure. In the first place, the researcher identified all the courses at UNZA which had enrolled more than 300 students or whose student populations had more than quadrupled since 1999. The number 300 was chosen because

preliminary desk research had revealed that on average the biggest lecture room at UNZA had a total seating capacity of 280 students. A total of 30 courses were identified. The respective codes of the selected courses were then written on 30 separate pieces of paper. After this the researcher randomly picked 15 pieces of paper after the stacks of paper pieces had been assembled and extensively shuffled. A Similar procedure was followed in the selection of CBU courses. Here all the courses with an enrolment in excess of 100 students and those courses whose size in terms of student numbers had more than quadrupled since 1999 were itemized. As in the case of UNZA, the criteria for selecting the number of courses stemmed from an analysis of the average seating capacity of the lecture halls at the university. A total of ten courses were identified and their respective course codes written onto ten separate pieces of paper. After repeated shuffling the researcher randomly picked five pieces of paper bearing five course codes. These were the courses that were to be studied closely.

The student-respondents were selected on the basis of the 20 sampled courses (namely; 15 at UNZA and five at CBU). A total of ten students were then selected from each of those courses which had student populations in excess of 300 as well as those courses whose respective student populations had quadrupled since 1999. The selection of the student-respondents was done according to the dictates of systematic interval sampling. For UNZA, the researcher, in liaison with the respective coordinators of the 15 sampled courses, selected every k^{th} name on the respective class lists-catalogues of all students enrolled in each particular course- until the desired number of respondents had been picked for each course

depending on the total population of each course. In this way the researcher came up with a total of 200 student-respondents (150 at UNZA and 50 at CBU). Once this had been done the next step was to obtain the consent of the selected student-respondents. The respective course coordinators rendered invaluable help in locating the selected respondents and in securing their voluntary consent. The researcher then administered a questionnaire which had an attached covering letter that underscored the respondents' right to withhold their consent.

The study also involved some structured interviews with some principal officers in the two universities. These respondents were selected by a combination of purposeful sampling and simple random sampling. Firstly, the titles of all the principal officers at the two universities--that is to say Vice Chancellors (two), Deputy Vice Chancellors (two), Registrars (two), Librarians (two), Bursars (two) and the Deans of Student Affairs (two) were written onto 12 separate pieces of paper. The pieces of paper were then placed into two separate carton boxes with lots of care to ensure that the contents of the first box were exact copies of the second box. The first box was labeled 'A' and represented the six principal officers of the University of Zambia, whilst the second was labeled 'B' and represented the principal officers of the Copperbelt University. The contents were then thoroughly mixed by repeatedly shaking the boxes. Afterwards a volunteer (an eighth grade pupil at UNZA secondary school) was asked to pick four pieces of paper from the box labeled 'A', without looking. A similar procedure was repeated for the box labeled 'B'. This way a total of eight principal officers

from both universities were selected as respondents for the interview with senior officers.

3.4 Research Instruments

(a) Questionnaire

The questionnaire was one of the research instruments employed in the study. A structured questionnaire was used to solicit information from the respondents. A total of 200 questionnaires were administered to 200 students from CBU and UNZA. These student-respondents had been carefully selected during sampling.

(b) Interview

The interview was the main research instrument used in this study to collect qualitative data. According to Borg (1963) no system of inquiry can be as revealing as an interview. Since these were conducted at most stages of the research undertaking, it may be worthwhile to outline some approaches to interview data.

(i) Access to Key Informants

Except for the principal officers in the two universities, Interview-respondents were selected for interviews by purposive sampling (May, 1993; Miles and Huberman, 1994). Upon the selection of informants as discussed in (3.3) above, the next challenge was to secure their consent. As Walford (1994) has correctly opined, access to powerful information-rich respondents can be considerably limited. But this can be overcome by invoking personal sponsorship from equally well placed associates especially the academia. Accordingly in all letters requesting for interviews, my supervisor a Senior Lecturer at one of the Public Universities was

named and the Department he heads was mentioned. In most cases the supervisor was known to the potential respondents and this considerably eased the researcher's access to key informants.

(ii) Structure and Content of the Interviews

The way the interview questions were posed, was somewhere between, highly standardized schedules and unstructured conversations (King, 1994; Patton, 1990). It was of course very important to ensure that all questions were asked of all interviewees because in the final analysis contrasts and comparisons had to be made. However, as much allowance as possible, was made for flexibility. Nothing precluded the use of questions that would elicit more detailed answers. Sometimes circumstances demanded that the sequence of interview questions be changed or sometimes that the combination of questions be altered according as the circumstances permitted.

(iii) Taping the Interviews

All the respondents did not appear to be uncomfortable with the taping of the interviews. This could have stemmed from the fact that many of the interviewees were from largely the academic world. But the researcher was not entirely blind to the knowledgeable caution offered by Thompson, (1996) and Kogan (1994) on the cassette's potential to inhibit interaction.

3.5 Ethical Considerations

Throughout the research, the researcher made concerted efforts not to depart from the norms of research ethics. The issues included the respondents' rights to privacy, dignity and the right to withhold

their consent to participate in the research undertaking. The researcher fully explained to all the interviewees that permission would be sought from them before quoting them; even anonymously. Furthermore, all the respondents were told in no uncertain terms that they reserved the right to decline to participate in the interviews. When each respondent expressed contrary intent, the researcher made them sign a pre-prepared consent form. The questionnaires on the other hand had a covering letter which asked the respondents to supply foster names unless they expressly approved of the inclusion of their real names.

3.6 Data Analysis

The data collected were analyzed in a number of conventionally established approaches. Data analysis in the qualitative model according to Miles and Huberman, (1994) comprises three levels of activity

- Data reduction
- Data display;
- Conclusion drawing/ verification

Data reduction is essentially attaching meaningful labels to data chunks (Miles and Huberman, 1994). Meanwhile Strauss and Corbin, (1990) described a process of data analysis in which questions are asked about the data and comparisons are made in order to identify similarities. Categories and themes are developed according to their properties (characteristics) or dimensions (high or low on a continuum). In this study data collected from the interviews and the questionnaire, were coded into emergent themes and grouped into categories. Through this analysis of the data the researcher was able to make a rational and fairly well-informed

assessment of the impact of expanded enrolments on the quality of public university education in Zambia.

Chapter Four:

Presentation of Findings

4.1 The Impact of Expanded Enrolments at UNZA and CBU on the Quality of Public University Education in Zambia

The main purpose of the study was to isolate the quantity-quality implications of the enormously expanded student populations at both UNZA and CBU. In order to capture these data, a number of instruments were used in order to reveal the issues that arose from the enormously expanded enrolments in the absence of corresponding expansion of infrastructure. On the whole the study exposed an education system that had received several fundamental bruises in the course of expansion. The most significant finding was that the expansion of enrolment at the two universities had occasioned a serious strain on the limited resources that accord with the norms of quality education as unanimously espoused by a number of prominent writers. Over enrolment was more clearly manifested at the University of Zambia where the number of students enrolled as at November 2007 could not match the availability of such facilities as could facilitate the successful completion of university education. At the time the present study was being undertaken UNZA had a total of 3,054 bed spaces against the student population in 2008 of approximately 10,107 (MOE, 2007:117). This meant that the University had over-enrolled by 7, 053 students in terms of availability of accommodation. Therefore, the registered students had to fight for this severely limited accommodation. This made the allocation of bed spaces extremely strenuous and sensitive. Some officials in the Office of the Dean of Student Affairs at UNZA complained of constant

harassment from investigative wings of the Government of the Republic of Zambia. The investigative wings of government could, apparently, not appreciate the seriousness of the accommodation shortage at UNZA and could therefore not help entertaining even unfounded complaints by students who had failed to secure accommodation in any of the university hostels.

The reading facilities at the universities were also found not only to be in a state of disrepair but also to be generally not sufficient enough to cater for the numbers of students which the universities had brought on board. At UNZA the total seating capacity of the main library was 1,500 in 2007. The seating capacity was found to have been the same since the Library was opened in 1969. The Librarians at the CBU, on the other hand, complained that the growing student population had seriously strained the operations of the main Library. The growing numbers of students had additionally increased the student-textbook ratio. At UNZA this ratio was said to have deteriorated to approximately 1,000 students per two copies of the key texts in some courses. The staffing levels at both main libraries were also extremely low. Librarians from both universities reported that they were operating at less than one-third of their prescribed staffing levels. When asked to explain the low staffing levels the respondents cited lack of financial resources for personal emoluments as the main reason behind the libraries operating at the less than half the strength.

4.1.1. The Effects of Expanded Enrolments on the Administrative Apparatus of the two Universities

In the study a number of interviews were conducted with key officers at both universities. To assess the impact of expanded enrolments on the Administrative apparatus of the two universities, the researcher engaged some senior officers at both universities in semi structured interviews which brought a number of issues to light. All the respondents uniformly bewailed the spate of expanded enrolments unaccompanied by corresponding increases in resource allocations to the universities. The principal officers at both UNZA and CBU complained that they had to deal with an enormously expanded system with the same capacity with which far fewer students had been handled before. This increased workload led to a number of shortcomings in the system. Employee morale was lost by exposure to enormously expanded student record systems at both universities. Fatigue was also cited as a constant ailment among the university employees. Not infrequently employees were admitted to hospital with complaints clearly related to overworking or simple exhaustion.

A Deputy Registrar at one of the universities complained of a very serious strain on the human resources in an effort to ensure the smooth running of the university operations. The various departments entrusted with the administrative functions of the respective universities were found to be seriously understaffed. There were, for example, two Deputy Registrars at both universities handling the Academic and Examinational Affairs of the combined student population (for both UNZA and CBU) 14,262 , a state of Affairs which caused one Deputy Registrar to remark that ` working

can never be more unpleasant and overwhelming'. Statements such as this were unsurprisingly common among many other Principal Officers in the universities, as were such terms as 'overloaded', 'overworked' and 'exhausted'. The low staffing levels at both UNZA and CBU were attributed to the low funding levels at the two institutions. Constantly, the insufficiency of personnel dealing with various aspects of Administration led to increased incidence of inefficiency in the mobilization and use of resources for the smooth running of the universities.

4.2. The Impact of Expanded Student Enrolments on the Teaching Activities of Lecturers at CBU and UNZA

All the twenty respondents testified to the strong inter-connection between the size of a class and the quality of education or instruction that can be given under those circumstances. Asked to qualify their belief in the strong link between quality and quantity the respondents gave long and varied explanations of this connection. A total of seven interviewees (35%) said they had insurmountable difficulty in attending to students' specific problems. This meant that individualized attention to student academic problems had been drastically affected by the sizes of classes. Six respondents (30%) felt that the enormously expanded student populations in their respective courses had brought direct pressure to bear on the lecturers' academic pursuits. They complained that they had been forced to work under intense pressure to deal with the effective management of their courses and the assessment of their students. Meanwhile four respondents (20%) who were predominantly from science based subjects complained that they had had to seriously compromise the

continuous assessment packages for their students. The argument was that the expanded student populations prevented the pursuit of a complete and thither-to strictly adhered to assessment Programme. Consequently the lecturers were compelled to discount up to seventy percent of the traditional student Assessment Programmes. Some respondents reported having done away with almost three quarters of the schedule of experiments students were expected to complete in each semester or term.

4.2.1. Length and Quality of Lecturer-Student Contact

Table 1: Lecturer Evaluation of the Quality and Duration of Student-Lecturer Contact

Response	Frequency	Percentage
'Absolutely Sufficient'	0	0
'Inadequate'	4	20
'Totally Inadequate'	4	20
'Somewhat Inadequate'	12	60
Total	20	100

The class sizes of the courses sampled in this study appeared to have serious ramifications on the quality and duration of this student-lecturer interaction as will be shown below. Ten respondents (50%) said that on average they had one-on one interaction with their students as infrequently as one day in a five day week which brought them into direct contact with only about twenty-five students per week. Five respondents (25%) said they saw approximately twenty students each week, while five other respondents (25%) said they saw only about ten students every week. All the respondents described the duration of their

individualized interaction with their students as 'unsatisfactory' citing time constraints. On a scale of 1 to 5 where 1 was equal to '*Absolutely Sufficient*' and 5 was equal to '*Totally Inadequate*'. Twelve respondents (60%) scored 3 which was '*Somewhat Inadequate*', while four respondents (20%) scored 4 which was '*Inadequate*'. Finally four (20%) respondents felt that the duration of the one-on-one contact with their students was "*Totally Inadequate*'.

Table 2: Lecturers' proposed Duration and frequency of Student-Lecturer Contact

Response	Frequency	Percentage
'Two Hours Per Student Per Week'	7	35
'One Hour Per Student Per Week'	9	45
'Thirty Minutes Per Student Per week'	4	20
Total	20	100

When prompted to suggest how much time per student they would consider sufficient for academic counseling and consultations, the lecturers again gave varied responses. Seven (35%) respondents felt that each student should have at least one hour for consultations every two days which would translate to two hours per week. Nine respondents (45%) felt that each student should have a minimum of one hour for consultations with the lecturer every week and four (20%) respondents felt that thirty minutes of consultation per student per week would suffice. These responses contrasted with the numbers of students which the lecturers said they actually had one-on-one academic counseling sessions with; it was therefore not surprising that almost all the respondents felt

that individualized interaction with their students was far from satisfactory.

4.2.2. Student Assessment and Evaluation Mechanisms

The primary intention was to ascertain the extent to which the growing numbers of students affected the assessment mechanisms of the two universities. All the respondents felt that nothing less than one full month would be enough to mark in excess of 300 exam scripts. Eleven respondents (55%) felt that they would thoroughly and objectively mark 30 students' scripts per week, so they would mark 120 in one month and less than 300 in two months. Five respondents (25%) felt that they would objectively mark 300 examination scripts in one month and two weeks, while four respondents (20%) felt that one month and one week would be sufficient for them to mark between 100 and 200 scripts.

Table 3: Lecturers' Preferred Workload for Marking of Students' Examination and Assessment Papers

Response	Frequency	Percentage
'30 Scripts Per week'	11	55
'300 Scripts 46 days'	5	25
'200 Scripts in 40Days'	4	20
Total	20	100

All the lecturers interviewed in this study revealed that they had enlisted the aid of different kinds of personnel in the universities for the purpose of marking the examination script of the students. Lecturers at grades *one*, *two* and *three* were heavily involved in all the sampled courses as were Staff Development Fellows as well as

postgraduate students in the respective departments. Ten lecturers (50%) said they had complete confidence in the ability of lecturers grades *one* and *two* in truthfully marking student papers, while four respondents (20%) were skeptical about the genuineness of the marks that some lecturers *two* would award. Finally six respondents (30%) said the nature of their courses (science based) did not admit of any compromised marking approaches and, therefore, they had complete confidence in the markers whose aid they enlisted frequently.

4.3. The Impact of Expanded Student Enrolments on the Lecturers' Research Activities

All the twenty respondents were uniformly agreed to the view that the sheer hugeness of the classes they handled severely affected their ability to conduct research in order to advance themselves professionally and thus to enhance their expertise in their fields of study. They reported that they were too pre-occupied with marking and lecturing to undertake such research as the nation expected from the academia. Some said they had to forego participation in the teaching and marking of other courses within their own departments.

4.3.1. Some Thoughts on Class Sizes

All the respondents uniformly responded in the affirmative when the researcher asked them whether they would rather have their classes reduced in terms of student populations. It was as to the exact extent to which they wished their classes trimmed that a number of divergent views emerged. Six respondents (30%) wished their classes would be cut by almost 2/3. Seven (35%) respondents

wanted the sizes of their classes reduced from above 300 students to less than 50. Four respondents (20%) felt that if their classes were reduced from above 600 to just fewer than 50 students then nothing would please them more. Finally three (15%) respondents wished that their classes could be reduced from about 900 students to less than 70.

As regards the lecturers' individual descriptions of their teaching conditions, many varied responses were recorded. Seventeen respondents (85%) cited inadequate physical infrastructure as a major impediment to effective teaching with nine (52%) of these respondents additionally revealing that lack of classrooms had at one time compelled their departments to contemplate doing away with Tutorials. Three respondents (15%) felt that to describe the physical infrastructure as inadequate would be an understatement as there was barely any room big enough to accommodate their huge courses even after the same had been split into four groups. The availability of reference materials for teaching was even more pathetic. The picture was particularly gloomy in the art based courses. In one course with approximately 1000 students the course coordinator revealed that the Department had only two copies of the key reference texts in the course. An additional search in the libraries revealed the availability of only four other copies. This brought the total number of copies to just six. These copies were to be shared by 1000 students! In another course the lecturer informed the researcher that the course had about 413 students and the prescribed books numbered seven. The library had only a copy of each of these prescribed books! The trend was similar in 15 other art based courses where text book-student ratio never went

below 1:70. In the science based courses the shortage of teaching materials manifested itself in a slightly different manner. Here there was a serious shortage of laboratory apparatus and other materials. The study revealed that at the University of Zambia most of the laboratory equipment had been bought as long ago as the 1970s and had to all intents and purposes outlived its usefulness. This meant that many experiments had to be cut out from the academic calendar as they could no longer be sustained.

4.4. Impact of Expanded Enrolments on the Students

The fourth objective of this study was to ascertain the impact of expanded enrolments at UNZA and CBU on the students. In order to capture these data a multi-structured questionnaire was administered to 200 students at UNZA and CBU. A number of responses were recorded. Tables four to eight summarise the most significant responses as given to this researcher by the students themselves:

Table 4: Student Descriptions of their learning Conditions in terms of: (a) Physical Infrastructure; (b) Accessibility of Reference and other Educational Materials; and (c) Course Management and Organization

(a)Physical Infrastructure		
Response	Frequency	Percentage
'Average'	63	31.5
'Bad'	87	43.5
'Very pathetic'	50	25
Total	200	100

(b)Accessibility of Reference and Other Educational Materials		
Response	Frequency	Percentage
'Bad'	123	61.5
'Very bad'	77	38.5
Total	200	100

(c)Course Management and Organization		
Response	Frequency	Percentage
'Average'	149	69.5
'Bad'	61	30.5
Total	200	100

The students' descriptions of their learning conditions were many and varied but they could be categorized into a convenient number of emergent themes. None of the 200 student-respondents described their learning atmosphere as "good" or "excellent". This reflected the students' complete dissatisfaction with the conditions under which they were learning. The prevalence of shortages of seating space in the lecture venues revealed some more violations of the quality of the learning atmosphere. The shortage of desks and chairs in the lecture venues, evidently, so discontented the affected students that they diverted their energies away from their

studying activities and were, additionally, compelled to learn in very uncomfortable postures, such as squatting, kneeling or standing throughout the lectures which sometimes lasted two hours. The infrastructure referred to the conditions of the lecture venues and how easy it was to find a seat at these venues. This meant that the students were learning in conditions that were far from satisfactory to them and which were largely devoid of motivation. This, arguably, had a negative impact on the students' ability to learn effectively.

There was equal discontent with the accessibility of reference and other educational materials in their respective. The accessibility of reference materials was described by all the 200 student-respondents as either '*bad*' or '*very pathetic*'. This finding was consistent with the lecturers concern over the text book availability which revealed that some courses had as few as two copies of the key texts for as many as 1,000 students. The quality-quantity implications of this were too plain to be misunderstood. The growing numbers of students made access to reading materials extremely difficult which, evidently, impacted negatively on the academic activities of the students. The picture was aggravated by the proven insufficiency of student-lecturer contact for academic counseling purposes.

The course management was described by 149 students (69.5%) as '*average*'. It was interesting to note that none of the students described the management of the huge courses as '*good*' or '*very good*'. This lukewarm attitude of the students may have stemmed from a number of causes, but common sense would seem to suggest that the students were alive to the pressure under which the respective course coordinators/lecturers were facing in managing the densely populated courses. The manifestations of '*average*' course management included the effectiveness of communication between coordinators and students, the efficiency with which examinations were administered, the accuracy with which results were processed and the ability of the lecturers to harness teaching recourses in order to smoothen up the academic pursuits of the students on the various courses. All in all, the students' rating of the course management of the various sampled lecturers revealed that quality had been compromised by the growing numbers of students.

Table 5: The Frequency of Individualized Students – Lecturer Contact as Described by 200 Students

Response	Frequency	Percentage
'Rare'	101	50.5
'Very Infrequent'	88	44.5
'Regular'	11	5
Total	200	100

Ninety-five percent of the students were far from satisfied with the frequency of individualized contact with the lecturers on the various sampled courses. This was, evidently, one of the gravest violations of the quality variables as discussed in the literature review section of this study. This level of student satisfaction amounted to a violation of an important part of the atmosphere. One might, therefore, be given to conclude that this aspect of quality had indeed been compromised.

Table 6: Student Levels of Satisfaction with Individualized Contact with their Lecturers

Response	Frequency	Percentage
'Very satisfied'	6	3
'Satisfied'	4	2
'Dissatisfied'	83	41.4
'Very Dissatisfied'	107	53.5
Total	200	100

Only four students out of 200 respondents were satisfied with the nature of the individualized interactions with their lecturers. This level of dissatisfaction tallied with the lecturers' description of student-lecturer contact. It would appear that very little learning was taking place outside the regular contact hours between lecturer and students. Such realities tended to subtract from the quality of education at the two universities. These were some of the most manifest implications of expanded enrolments unaccompanied by corresponding expansion of infrastructure. It meant that what the students lost out on the inaccessibility of reading materials, they could not make up through interaction with their lectures. This was a loss in terms of quality. It would be bound to result in "half baked" graduates.

Table 7: The Accommodation status of the 200 Students – Respondents

Status	Frequency	Percentage
'Accommodated'	36	18
'Unaccommodated'	164	82
Total	200	100

The fact that only 18 student-respondents (out of 200) were accommodated testified to the aggravation of quality education clearly resulting from expanded enrolments. This state of affairs stemmed from acute shortage of study rooms at both CBU and UNZA. The growth of the student populations had clearly outstripped the capacity of the two institutions to provide adequate lodging facilities to the students. Admission to the universities was not tied to the available facilities

Table 8: Students' thoughts on whether their academic performance would improve once they were offered university accommodation:

Response	Frequency	Percentage
'Totally agreed'	103	63
'Agreed'	61	37
Total	200	100

All the student respondents were agreed with the theory that their academic performance would improve once they were offered university accommodation. This demonstrated a belief that lack of accommodation was impacting negatively on the academic agendas of the students. It would be very plausible to argue that the quality of education at the two universities would definitely improve once future admission of students was tied to the available lodging facilities so that the students could expend all their efforts on study and development without sharing the same with accommodation blues.

Chapter Five: Discussion of the Findings

5.1 The Impact on Lecturers' Research Activities

The study revealed a series of significant aggravation of the research and teaching activities of the lecturers at the two universities. The dimensions of quality as discussed in chapter three of this dissertation were repeatedly bruised by factors clearly emanating from the enormously expanded enrolments at the two universities. Sixty-five per centum of the lecturer-respondents in the study were deeply concerned by the rapid deterioration of standards in their teaching and research activities as the number of students under their courses expanded. The reduced individualized interaction between the lecturers and their students was strong evidence of a departure from the correct mode of instruction as variously espoused by a number of writers on 'quality in education' (Fraser, 1989; Kulik and Kulik, 1989; Wolf, 1993). This study revealed a significant widening of the gap between student and instructor which was, by and large, a regrettable subtraction from teaching learning activities at the two universities. Had the students been fewer, the lecturers would have surely devoted ample time and energy to enhance learning by attending to students' academic needs not adequately addressed during the regular contact hours.

Equally pathetic was the impact of class sizes on the lecturers' research undertakings as sanctioned by both statutory bodies and other writers on university education (Wolf, 1993). It is mandatory in the university world for academicians to not only teach but also

to be actively involved in the continuous broadening of the frontiers of knowledge through research. The research activities of the academia have a number of fundamentally relevant objectives, *inter-alia* the solving of societal problems, the isolation of successful strategies of economic management and more importantly for the lecturers' own professional advancement and the enhancement of their respective expertise in the subjects that they teach (MOE, 1996; Tuckman 1990 and Wolf, 1993). However, this study brought to light the implications of the growing student populations at UNZA and CBU which seriously militated against the research activities of the university lecturers.

The reduction in research undertakings by academicians at the two universities can be counted as a loss to the system, as research is a mandatory activity for academicians the world over (Tuckman, 1990). Lack of research meant that the students were deprived of more informed instruction. This was so because most of the lecturers in the sampled courses were compelled to concentrate much time and effort on the management of their respective courses at the expense of enhancing their expertise in the field through research. Without conducting research the lecturers would not hope for upward mobility on the academic ladder, thus students would have to contend themselves with being lectured to by relatively low caliber academicians such as SDFs, lecturer 'grade iii's and occasionally lecturer 'grade ii's. Lecturer 'grade i's would become very rare, Senior Lecturers would become even rarer. Professors would virtually become extinct. For example a School at one of the universities had only two Professors against a total student population of 4,465 (MOE, 2007:120). This could have been

the result of many causes, but it would be logical to assume that the huge student population in that school accounted for most lecturers' failure to rise to the apex of the academic ladder-Professorship.

5.2 The Implications of Diminished Lecturer-Student Contact

As pointed out earlier, individualized interaction between lecturers and their students can be very enriching to the teaching-learning process. It is through this process that the students' analytical skills would, for example, be sharpened; the defects in the students' approach to academic questions may also be ironed out through this process of individualized interaction between lecturers and students. Therefore this section will be devoted to the analysis of the implications of the student-lecturer contact in the context of quality. To assess the quality of this contact can be quite challenging, but for the purpose of this analysis it would be sufficient to ascertain the lecturers' and students' level of satisfaction with the individualized contact they had with each other. To solicit the information four responses were presented to the lecturers in terms of how they viewed the contact with their students. The responses derived showed that all the lecturers were far from satisfied with individualized interaction with their students.

This dissatisfaction clearly stemmed from the hugeness of the courses handled by the lecturers. As the lecturers had to attend to a large number of students on a one-on-one basis, they had to limit the duration of each session to the most absolute minimum. This may have resulted in failure to fully address the academic problems of the students. It should also be remembered that the same

lecturers were additionally heavily involved in other aspects of course management besides academic counseling of the students. Therefore, it would not be illogical to suppose that during academic counseling with the students the lecturers would be eagerly anticipating the conclusion of the session so that they could return to the other aspects of course management aside from student counseling. Such a state of affairs had the danger of subtracting from the lecturers' devotion to the academic counseling session. A fatigued and overworked lecturer would not be expected to respond to student problems with such enthusiasm and confidence as would bring about the sharpening of student analytical and reasoning skills (Lockheed and Hanushek, 1987). Whether the academic counseling session would result in the sharpening of the students' analytical skills would, thus, not be assured.

The quality of the counseling sessions was further compressed by the fact that there were other equally valid claims on the lecturers' time by other aspects of course management. The study revealed that a far less amount of time was available for student counseling than the lecturers considered sufficient for a thorough and enriching academic intercourse with their students. Opportunities were, therefore, minimized for the lecturers to bring about a full well rounded education of their students. Had the students been fewer, the enriching effects of one on one lecturer-student interaction would have flourished. The amelioration of the unhappy students' overt and covert defects and academic shortcomings was sacrificed for the supposed benefits that would accrue to the Republic of Zambia from the production of graduates *en masse*, by two of Zambia's public universities.

5.3 Inflated Class Sizes and the Erosion of Quality

All the 20 lecturer-respondents interviewed at both CBU and UNZA wished for their course populations to be massively reduced. This had serious implications for quality. The lecturers' preference for much smaller classes could definitely result in half hearted devotion to the teaching activities. As the enrolment of students is done by higher organs of the universities, the lecturers could unintentionally cultivate some degree of resentment towards the admitting authorities at both universities for over enrolling without corresponding expansion of infrastructure and other facilities relevant to effective teaching. Tied to this resentment would be the issue of remuneration. The study revealed a series of conflicts between the higher organs of the universities and the lecturers over the issue of payments for work done. Common sense would seem to suggest that this conflict had the potential to degenerate given the exacerbating effects of lecturers' preference for smaller classes which clashed with the admitting authorities' justification of the enrolment patterns at CBU and UNZA on equity grounds. Thus the tendency towards industrial unrest among lecturers would be given extra ammunition by the clash of preferences over class size (Heyneman and Loxley, 1983).

5.4 The Resultant Scarcity of Educational Resources

There was also a serious miss-match between class sizes and available resources for effective teaching and learning. The widespread unavailability of reference materials in the main libraries at both universities was strong evidence of a lamentable compromise in quality. The number of books in the library and the

number of times the students use the libraries are, according to Grisay and Mahlck (1991), crucial indicators of quality. Given the shortage of textbooks and the shortage of reading space in the libraries at UNZA and CBU, one can only argue that the frequency of students' use of the libraries and their access to key texts on their respective courses was severely limited by the lack of reference materials and reading space, much to the detriment of quality. The most ideal interpretation that can be given to these unfortunate circumstances could be that they illustrate a clear departure from the norms of quality as variously espoused by a number of prominent writers on quality (Peters and Waterman, 1982; Windhan, 1989 and Cummings and Dall, 1995).

5.5 The Latent Shortcomings of Some Ameliorative Approaches

The assessment and evaluation of student progress are some of the most important professional responsibilities of lecturers. These two functions constitute the most potent force through which the quality of education can be measured. Accordingly, the present study used assessment and evaluation as a yardstick for measuring the quality of education at UNZA and CBU. A number of issues arose. The study revealed that the marking and assessment mechanisms of the two universities had been negatively affected by the expanded enrolments of students. For example, the amount of time allocated to the lecturers for marking of examination papers in the marking season immediately preceding this research was found to have fallen short of what the lecturers felt would be sufficient for marking the papers in the volumes dictated by the numbers of students in the sampled courses.

The study, further, revealed a significant compromise of the student assessment packages. When an explanation for this was sought, class size was predominantly cited as the main reason. The compromise of the assessment package constituted another major subtraction from the quality of education at the two universities (Heyneman and Loxley, 1983). The hugeness of some of the sampled courses called for a discount of up to 70 per centum of the tools for assessing student progress. This meant that the respective defects and shortcomings of the students would not be detected and eliminated before the students could be offloaded onto the labour market. To describe the products of such an arrangement as 'half baked' would represent an absolutely correct characterization. The quality of the students would be fuller if they underwent the tests and evaluation intentionally envisioned for them by such lawfully competent bodies as the respective Senates of the two universities. The compromise of the assessment packages for the students also meant that the students' acquisition of knowledge would not be measured with the appropriate accuracy and completeness and as such the students may very likely fail to acquire the knowledge that they are supposed to have by virtue of being university students. The only compensation to the society would be that such students are produced en mass.

The pressure exerted on the lecturers during marking was bound to compromise the marking activities. It would appear that given the time constraints and the amount of work involved, the lecturers would naturally devise some means of working through the problem. Where the examination papers were predominantly essay type questions, it would not be surprising to find the lecturers

failing to subject the examination scripts to Microscopic scrutiny. The result of such an ameliorative approach would be the wrongful award of inflated grades to papers that lacked merit. In the event of such an outcome, the products of the education system can not be said to be of the appropriate standard. The marking of student examination papers could, therefore, be more thorough and objective with fewer students. The quality implication of the foregoing would be that the screening and evaluation mechanisms of the two universities would be rendered toothless and ineffective. Students would be of loaded onto the labour market with seemingly good university grades, but without the requisite ability to execute the demands of the world of work. Simply stated, the students produced in this manner would be 'half-baked'.

In the science based courses, the tendency was apparently to avoid overloading the examination papers with formula-intensive questions which would elicit a deeper and more penetrating analysis from the marking parties. This served to ease the marking activities of the lecturers in that they spent shorter periods of time in marking each script as there were fewer formula-intensive questions. But the quality of the education was clearly reduced by such tendencies. It meant that the students would eventually get away with university degrees without having put in as much effort as would be required for the award of equivalent degrees in other universities. This would, evidently be another subtraction from the quality of education.

All the lecturer-respondents in this study revealed that they had enlisted the aid of other members of the academic staff in the

marking of both examination papers and continuous assessment papers for the students. The lecturers were, however, not completely confident in the marking approaches of the SDFs and the less experienced lecturers. It appeared that it was only the circumstances which compelled the lecturers to entrust the junior members of staff with the responsibilities of marking student examination and continuous assessment papers. Most of the respondents felt that they would be more comfortable to personally mark their students' papers but the hugeness of their classes prevented this from happening. The concern was that, given the huge numbers of students, the less qualified and inexperienced academicians would conduct the marking in a compromised manner that would naturally admit of mediocrity. This would be at the expense of quality as it would no longer be certain that the grades awarded to the students actually represented their (students') input into the learning activities. All this could be avoided if there were fewer students or if there were more qualified and experienced examiners.

Chapter Six:

Conclusions and Recommendations

6.1. Conclusions

The purpose of the study was to assess the impact of expanded student enrolment at the University of Zambia and the Copperbelt University on the quality of education offered at the two institutions. The investigation was carried out at the two universities. Qualitative and quantitative research methods were used. Questionnaires and interviews were used as data collection tools. Quantitative data were expressed in frequencies and percentages. Qualitative data were qualitatively analyzed and coded into emergent themes. The following were the major findings of the study:

- i. The increases in the student populations at the two universities were largely unaccompanied by corresponding increases in infrastructure and institutional capacities at the two institutions.
- ii. The huge student populations negatively affected the teaching activities of the members of staff at the two universities.
- iii. The increased teaching load resulting from expanded enrolments prevented the members of the academia at the two universities from carrying out mandatory research for the purpose of professionally advancing themselves and also enriching their expertise in their respective fields of study.
- iv. Marking student papers in the numbers witnessed at the two universities severely compromised the quality of university education.

- v. The expanded enrolments at UNZA and CBU had no obvious link to the available resources crucial to effective teaching and learning.
- vi. The average seating capacities of the lecture venues at the two universities fell far too short of the numbers that had been enrolled in the sampled courses.
- vii. There were not enough boarding facilities at both universities to accommodate the numbers of students that had been taken on and this was a subtraction from quality.
- viii. There was general over enrolment at the two universities and quality had clearly been traded-off for the quantitative gains in relation to the human resource needs of the Republic of Zambia.

6.2 Recommendations

The findings of the study prompted the proposal of the following recommendations:

- I. The admitting authorities at the two universities may find it extremely useful to tie any future expansion of enrolments to the available resources for teaching and learning in a university, the number of students admitted each year should tally with the available seating, reading and lodging facilities available at each of the two institutions.
- II. The two universities would help safeguard the quality of university education by embarking on an ambitious infrastructural expansion Programme to increase the seating capacities of the various lecture venues.
- III. The Senates of the two universities may enforce strict restrictions on the number of students each lecturer should be

in charge of; this may help in reducing the pernicious incidences of diminished individualized student-lecturer contact.

- IV. The Ministry of Education of the Republic of Zambia may consider establishing a public university in each of Zambia's nine provinces so as to cushion the impact of the increasing number of eligible university entrants on the three Public universities in Zambia.
- V. The GRZ will evidently salvage the quality of public university education in Zambia if it increases the yearly budgetary allocations to the public universities by ten times what had been given in 2008; this will help the universities to meet the material and educational resource needs of quality university education without discounting from the bill for personal emoluments.
- VI. Quality may also be better assured if the Bursaries Committee of the Republic of Zambia would consider providing express funds for GRZ sponsored students to procure lodging facilities around the three campuses which make up CBU and UNZA in order to mitigate the acute shortage of student accommodation at both CBU and UNZA.
- VII. The Bursaries Committee of GRZ would not be mistaken if it extended Bursary schemes and loans to eligible university entrants who may wish to conduct their academic pursuits in recognized private universities.
- VIII. It may also be extremely prudent to call upon the Human Resource committees of the respective Councils of the two universities to, as a matter of urgency, embark on an intensive academic staff recruitment exercise so as to



normalize and rationalize the student-lecturer ratios at the two universities as these ratios have assumed quality endangering proportions.

- IX. The two universities may also consider reverting to the federal structure which had been abandoned in 1988 when CBU was created; a federal structure would evidently mitigate the shortage of accommodation and make teaching and learning resources easier to harness. If the various Schools, Directorates and Bureau were spread out through the country it would make each unit manageable and accommodation for staff and students would also be easier to procure.
- X. Finally, it is the view of the present researcher that it would be helpful if another study could be undertaken focusing on the quality of the outputs from the two universities, as this study has concentrated on the input indicators.

Bibliography

- Armitage, J., Neto, J. B. F.G., Harbinson, R. W., Holsinger, D.B. and Leiti, R.H. (1986). "School Quality and Achievement in Brazil", a Discussion paper.
- Ashby, E. (1964). ***African Universities and the European Tradition***. London: Oxford University Press.
- Bardoville, R. (1984), "The Mobility Patterns of the University of Zambia Graduates: The Case of the 1976 Cohort of Graduates", ***Zambia Educational Review***. 5 (1): 10-35.
- Becker, W.E. and Harnet, D. L. (1987), ***Business and Economics Statistics with Computer Applications***, Toronto: Addison-Wesley.
- Borg, W.R. (1963). ***Educational Research: An Introduction***. New York: David McKay and Company.
- Cheng, Y.C.and Tam, W.M. (1997), "Multi-models of quality in education", ***Quality Assurance in Education***. 5 (1): 22-31.
- Chokani G.L. (1984), "The University of Zambia's Response to the Manpower Needs of the Country," M.Ed Thesis, University of Zambia
- Cummings, W.K. and F.P. Dall (1995). ***Implementing Quality Primary Education for Countries in Transition***. New York: UNICEF.
- Dar-es-Salaam Maritime Institute, (2002), ***Dar-es-Salaam Maritime Institute Quality Manual***. Dar-es-Salaam: Dar-es-Salaam Maritime Institute.
- Deming, W.E. (1998), "Understanding Continuous Quality Improvement and Total Quality Management", ***Population Reports***, 26 (3), Population Information Programme, Centre for Communication Programmes, John Hopkins School of Public Health, Baltimore.
- Duraisamy, P. J., E. Lane, J. and Jee-Peng Tang (2004). ***Is There a Quality-Quantity Trade-off as Enrollments Increase? Evidence from Tamil Nadu, India***. Washington: World Bank.

- Fraser, B.J. (1989), "Research Syntheses on School and Instructional Effectiveness", ***International Journal of Educational Research***. 13 (7): 707-719.
- Goetz, J. P. and Le Compte, M.D. (1984), "Characteristics and Origins of Educational Ethnography", in Goetz, J.P. and Le Compte, M.D. (eds.). ***Ethnography and Qualitative Designs in Educational Research***. London: Academic Press, pp. 1-32.
- Goma, Lameck H. K. (1984), "Miscellaneous Addresses", in Tembo, L. P. (ed.). ***The African University: Issues and Perspectives***. Lusaka: NEDCOZ, pp. 43-90
- Grisay, A. and Mahlck, L (1991). ***The Quality of Education in Developing Countries: A Review of Some Research Studies and Policy Documents***. Paris: UNESCO.
- Harvey, L. and Green, D. (1993), "Defining quality", in ***Assessment & Evaluation in Higher Education***. 18 (1): 9-34.
- Heyneman, S.P. and Loxley, W.A. (1983), "The Distribution of Primary School Quality within High and Low Income Countries," in ***Comparative Education Review***. 28 (2): 108-118.
- Hornby, P. and Seymon, G. (1994), "Tracer Studies", in Cassell, C and Seymon (eds.). ***Qualitative Methods in Organizational Research***. London: Sage, pp. 167-186.
- Kalimaposo, K.K. (2000), "The Relationship between Students' Social-Economic Background and University Entrance in Zambia," M.Ed. thesis, the University of Zambia.
- Kapale, R.S. (1981), "The Foundation of Education Program at the University of Zambia: A Critical Examination." M.Ed. thesis, Columbia University.
- Kayungwa.L. J. (2002), "Qualities of an Effective Teacher as Perceived by Grade 12 Pupils and Teachers in Selected Secondary Schools in Lusaka", M.Ed. thesis, The University of Zambia
- Kelly, M.J. (1991). ***Education in a Declining Economy***. Washington D.C.: World Bank.

King, N. (1994), "The Qualitative Research Interview," in Cassell and Seymon, G. (eds.) ***Qualitative Methods in Organizational Research***. London: Sage, pp. 14-38.

Kogan, M. (1994) "Researching the Powerful in Education and Elsewhere", in Walford (eds.) ***Researching the Powerful in Education***. London: University College of London Press, pp. 67-80.

Kulik, J.A. and Kulik, C.L. (1989), "Meta-Analysis in Education", in ***International Journal of Educational Research***. 13: 277-325

Lockheed, M. and Hanushek, E. (1987). ***Improving the Quality of Education in Developing Countries: A Review of the Evidence***. Washington: The World Bank.

Luangala, J.L. (2008), "Essentials in Academic Essay Writing" A Paper Presented at a **Workshop to orient Tutors in EAPS Courses**, held at the Manchinchi Bay Lodge, Siavonga, Zambia.

Lungwangwa, G. (1984), "Basic education in Zambia: A Study in Educational Policy Development," PhD. Thesis, University of Illinois.

Maliwatu, J. (2006), "A Comparative Study of Classroom Practices of Graduate and Non-Graduate Teachers of Mathematics in Selected High Schools of the Copperbelt Province," M.Ed. Thesis, the University of Zambia.

May, T.(1993). ***Social Research: Issues, methods and Process***. Buckingham: Open University Press.

McNaught, C. (2003), "Innovation and change in higher education: Managing multiple polarities", ***Perspectives***. 7 (3): 76-82.

Meki, C.L. (2005), "The Effects of Termly Grants from the Ministry of Education on the Quality of education being offered in Lusaka Middle-Basic Schools," M.Ed. Thesis, the University of Zambia.

Miles, M. B. and Huberman, A. M.(1994). ***Qualitative Analysis: An Expanded Sourcebook***. Thousand Oaks: Sage

Ministry of Education,(1996). ***Educating Our Future***. Lusaka: Ministry of Education.

- Ministry of Education,(2005). ***Educational Statistical Bulletin***. Lusaka: Ministry of Education.
- Ministry of Education,(2006). ***Educational Statistical Bulletin***. Lusaka: Ministry of Education.
- Ministry of Education,(2007). ***Educational Statistical Bulletin***. Lusaka: Ministry of Education.
- Mwanakatwe, J.M. (1974).***The Growth of Education in Zambia since Independence***. Nairobi: Oxford University Press.
- National Council for Technical Education, (2003). ***Report on System of Quality Control and Quality Assurance for Technical Education Institutions***. Dar-es-Salaam: NACTE.
- Northern Rhodesian Government,(1964).***Report on the Development of a University in Northern Rhodesia***. Lusaka: Northern Rhodesian Government.
- Nyirenda, H.B.C. (1994), "Factors relating to University of Zambia graduate-teacher attrition in Zambian secondary Schools," M.Ed. Thesis, the University of Zambia.
- Onyango, B. (1972), "The Role of a University in a Developing Country," a paper presented to the Second Conference of University administrators of East, Central and Southern Africa in Lusaka from Thursday, 24th to Saturday,26th February 1972.
- Patton M. Q. (1990). ***Qualitative Evaluation and Research Methods***. Newsbury Park: Sage.
- Peninsula Technikon (2001), ***Quality Assurance Handbook***. Cape Town: Peninsula Technikon.
- Peters, T. and Austin, N. (1986). ***A Passion for Excellence***. Glasgow: Fontana
- Peters, T.J. and Waterman, R.H. (1982). ***In Search of Excellence***. New York: Warner Books.
- Procter, P. (1978), ***Longman Dictionary of Contemporary English***. Harlow: Longman.

Sallis, E. (1996), ***Total Quality Management in Education***. London: Kogan Page.

Strauss, A. and Corbin, J. (1990), "Coding Procedures", in Strauss, A. and Corbin (eds.). ***Basics of Qualitative Research***. London: Sage, pp 56-115.

Thompson, D. J. (1996), "The Tape Recorder as a Mediating Factor in Research," in ***The Australian Educational Research***. 23(3): 1-12.

University of Zambia (2003), "The Strategic Plan 2003-2007: A Summary".

Tuckman, B.W. (1990), "a Proposal for Improving the Quality of Published Research," in ***Educational Researcher***. 19(9): 22-25.

Walford, G. (1994), "A New Focus on the Powerful", in Walford, G. (ed.) ***Researching the Powerful in Education***. London: University College Press, pp 2-11.

Windhan, D. (1989). ***Indicators of Educational Effectiveness and Efficiency***. Paris: UNESCO.

Wilson, B. (1983), "Adjustment Problems of University of Zambia Students," PhD. Thesis, the University of Zambia.

Wolf, R.M. (1993). ***Judging Educational Research Based on Experiments and Surveys***. Paris: UNESCO.

A) Student and Course Details

1. Sex.....
2. Year of study.....
3. School
4. Course
5. Cell #.....

B) Indicators of Quality

1. on a scale of 1 to 5 where 1= 'excellent' and 5= 'horrible/pathetic, describe your present learning conditions in the course you have indicated in A 4 above in terms of the following:
 - Physical Infrastructure []
 - Educational Materials []
 - Teaching Staff []
 - Management []
 - Organization []
 - Academic Performance []
2. Do you think the size of your class (in terms of number of students) has a direct bearing on the quality of the teaching-learning process? Yes [] No []
- 3 Describe your accessibility to the recommended and required books on the Course you indicated in A 4 where

- 1= very accessible []
- 2=accessible []
- 3=not accessible []
- 4=unavailable []

C Classroom Dynamics

1. Do you sometimes encounter a shortage of seating space when you attend lectures in the course indicated in A 4? Yes []/ No []
2. If yes, how often does this happen in the course of one week (three lectures)
 - [] once
 - [] twice
 - [] thrice
3. Do you think lack of seating space affects your ability to learn effectively?
 - 1= definitely []
 - 2=somehow []
 - 3=no []
4. What do you think would be the right size of the class population in the course you indicated in A 4? []
6. Does the size of your class affect your ability to score high marks on this course
 - [] 1=definitely [] 2=somehow [] 3=not all

D Contact with lecturers and course coordinators

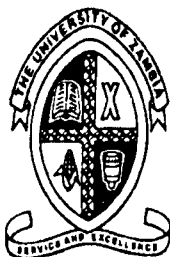
1. How often do you have one on one contact with the lecturers/ coordinator of the Course? []
 (A) Regularly (B) rarely (C) very infrequently
2. Are you satisfied with the time allocated for academic sessions with the course Coordinator? []
 A) Very satisfied B) satisfied C) dissatisfied D) very dissatisfied
3. Indicate the number of times you would like to meet your coordinator (face to face) and your preferred length of each of these one on one academic session
 Frequency: []
 Duration: []

D Lodge details

1. Are you accommodated in a university room? Yes [] No []
2. If yes in D 1 above how many people are currently staying in the room? [] a) more than 2 b) more than 3 c) more than 4 d) more than 5 e) other (specify) []
3. How many people do you think should occupy one room with you in order to have an environment that is conducive enough for your studying? []
4. If you are not accommodated how has this affected you academic pursuits? []
 1) positively 2) negatively 3) in no significant way
5. If you are given accommodation do you think your performance will improve? []
 1= totally agree 2= agree 3= disagree 4= totally disagree

Thank You for Your Time

Appendix B: Interview Schedule for Lecturers at CBU and UNZA



The University of Zambia
School of Education
Department of Educational Administration and Policy Studies

Dear Interviewee

I am a Staff Development Fellow in the Department of Educational Administration and Policy Studies at the University of Zambia and I am presently reading for my Master of Education in Educational Administration. My research is entitled "*The Quality-Quantity Trade-off: Implications of Expanded Enrollments at Two of Zambia's Public Universities*".

I am kindly requesting you to answer a few questions in the following interview which is the main research instrument in my study. I shall appreciate your cooperation in this research. Be further informed that this is a purely academic undertaking and the findings of this research will be used for strictly academic purposes. You, however, reserve the right to withhold your consent for participation in this interview. Your anonymity is hereby strongly guaranteed. It is further guaranteed that permission will be sought from you before quoting you, even anonymously. If you accept to participate in the interview kindly sign in the space provided below.

Ferdinand M. Chipindi

I _____ hereby declare that I have freely given my consent to the said Ferdinand M. Chipindi to ask me some questions in relation to his Master of Education in Educational Administration studies. I do understand and accept that the contents of the interview will be used for strictly academic purposes and that the said Ferdinand M. Chipindi will ask my permission before quoting me even indirectly.

Sign.....

Date.....

A Lecturer and Course Details

1. Lecturer Name.....

2. Institution.....

3. Qualifications.....

4 Length of service with the University.....

5 Gender.....

6 Course.....

7 Course Population (if above 200 Students).....

B. Variables Defining Quality University Education

1. What is your understanding of 'Quality in Education Provision'?
2. In your opinion, does class size (student numbers) affect "Educational Quality"?
3. Would you like to qualify your answer in B 2 above?
4. How do you cope with the course population you have indicated in A 7?

C. Length and Quality of Contact between Lecturers and Students

1. How frequently do you get into academic contact with individual students on your course?
2. Would you describe the duration of these meetings as satisfactory or not?
3. On a scale of 1 to 5 where one is equal to absolutely sufficient and 5 is equal to very inadequate how would you rate the duration of these meetings?
4. How much time would you comfortably allocate to each student for academic Counseling and consultations per week?.....
5. How many students on average do you actually see per week?.....

D. Lecturer Perceptions of Class Sizes

1. Given a choice would you rather have the size of your class trimmed?
2. What number of students per class do you consider to be consistent with quality education: less than 50/ less than 70/ less than 20?
3. Describe your current Teaching/Learning activities in terms of:
 - Physical infrastructure
 - Educational materials

- Teaching staff
- Management
- Organization
- Student flows

E. Assessment and Examinations

1. What amount of time do you think would be sufficient to for you to objectively and thoroughly mark the assessment and examination papers of the students on your course?
2. In the last marking seasons how much time where you actually allocated for how many students?
3. In your marking activities do you receive assistance from other members in your department namely:

- Professor.....
- Senior Lecturer.....
- Tutors (undergraduate).....
- Tutors (post-graduate).....
- S.D.F.....
- Lecturer 1.....
- Lecturer 2.....
- Lecturer 3.....

4. On a scale of 1 to 5 where 1 is equal to “*very confident in*” and 5 is equal to “*not Confident in*” how would you describe your outlook on those people who assist You in your marking activities namely:

- Professor.....
- Senior Lecturer.....
- Tutors (undergraduate).....
- Tutors (post-graduate).....
- Lecturer 1.....
- Lecturer 2.....
- Lecturer 3.....
- S.D.F.....

Thank You Very Much

Appendix C: Interview Schedule for CBU/UNZA Librarians and/or Their Representatives



The University of Zambia
School of Education

Department of Educational Administration and Policy Studies

To the University Librarian

Greetings

I am a Staff Development Fellow in the Department of Educational Administration and Policy Studies at the University of Zambia and I am presently reading for my Master of Education in Educational Administration. My research is entitled *“The Quality-Quantity Trade-off: Implications of Expanded Enrollments at Two of Zambia’s Public Universities”*.

I am kindly requesting you to answer a few questions in the following interview which is the main research instrument in my study. I shall appreciate your cooperation in this research. Be further informed that this is a purely academic undertaking and the findings of this research will be used for strictly academic purposes. You, however, reserve the right to withhold your consent for participation in this interview. Your anonymity is hereby strongly guaranteed. It is further guaranteed that permission will be sought from you before quoting you, even anonymously. If you accept to participate in the interview kindly sign in the space provided below.

Ferdinand M. Chipindi

I _____ hereby declare that I have freely given my consent to the said Ferdinand M. Chipindi to ask me some questions in relation to his Master of Education in Educational Administration studies. I do understand and accept that the contents of the interview will be used for strictly academic purposes and that the said Ferdinand M. Chipindi will ask my permission before quoting me even indirectly.

Sign.....

Date.....

Interview Questions

1. Would you like to indicate your understanding of Quality in relation to Quantity in Educational Provision?
2. How has the expansion of enrolment in the university affected the quality of education at this institution?
3. Would you agree with the view that the expansion of enrolments in the university has come at the expense of quality?
4. How have the expanded enrollments affected the operations of the library?
5. What is the total seating capacity of the library? And have you ever expanded the reading facilities since 1999?
6. Describe the current state of the main library in terms of reading space and reading
7. How have the expanded enrollment affected the members of the library staff?

Thank you Very Much for Your Time

Appendix D: Interview Schedule for Deans of Students and/or their Representatives at UNZA/CBU



**The University of Zambia
School of Education
Department of Educational Administration and Policy Studies**

The Dean of Students

I am a Staff Development Fellow in the Department of Educational Administration and Policy Studies at the University of Zambia and I am presently reading for my Master of Education in Educational Administration. My research is entitled *“The Quality-Quantity Trade-off: Implications of Expanded Enrollments at Two of Zambia’s Public Universities”*.

I am kindly requesting you to answer a few questions in the following interview which is the main research instrument in my study. I shall appreciate your cooperation in this research. Be further informed that this is a purely academic undertaking and the findings of this research will be used for strictly academic purposes. You, however, reserve the right to withhold your consent for participation in this interview. Your anonymity is hereby strongly guaranteed. It is further guaranteed that permission will be sought from you before quoting you, even anonymously. If you accept to participate in the interview kindly sign in the space provided below.

Ferdinand M. Chipindi

I _____ hereby declare that I have freely given my consent to the said Ferdinand M. Chipindi to ask me some questions in relation to his Master of Education in Educational Administration studies. I do understand and accept that the contents of the interview will be used for strictly academic purposes and that the said Ferdinand M. Chipindi will ask my permission before quoting me even indirectly.

Sign.....

Date.....

Interview Questions

1. Describe the student enrollment patterns in the University of Zambia since 1999.
2. Have the enrollment patterns been consistent with infrastructural development under taken under the auspices of your office?
2. Have the enrollment patterns been consistent with infrastructural development under taken under the auspices of your office?
3. How has the growing student population affected the office of the Dean of Student Affairs?
4. How best do you think the operations of your office can be sustained in the light of expanded enrollments in the university?
5. How many bed spaces does the university have?
6. Given the fact that you have far fewer bed spaces than there are students in this University how do you allocate these limited bed spaces?

Thank you for your time

**Appendix E: Interview Schedule for the Registrars and/or their Representatives from
CBU/UNZA**



**The University of Zambia
School of Education
Department of Educational Administration and Policy Studies**

The Registrar

The University of Zambia/Copperbelt University

I am a Staff Development Fellow in the Department of Educational Administration and Policy Studies at the University of Zambia and I am presently reading for my Master of Education in Educational Administration. My research is entitled *“The Quality-Quantity Trade-off: Implications of Expanded Enrollments at Two of Zambia’s Public Universities”*.

I am kindly requesting you to answer a few questions in the following interview which is the main research instrument in my study. I shall appreciate your cooperation in this research. Be further informed that this is a purely academic undertaking and the findings of this research will be used for strictly academic purposes. You, however, reserve the right to withhold your consent for participation in this interview. Your anonymity is hereby strongly guaranteed. It is further guaranteed that permission will be sought from you before quoting you, even anonymously. If you accept to participate in the interview kindly sign in the space provided below.

Ferdinand M. Chipindi

I _____ hereby declare that I have freely given my consent to the said Ferdinand M. Chipindi to ask me some questions in relation to his Master of Education in Educational Administration studies. I do understand and accept that the contents of the interview will be used for strictly academic purposes and that the said Ferdinand M. Chipindi will ask my permission before quoting me even indirectly.

Sign.....

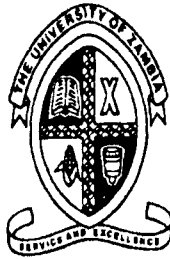
Date.....

Interview Questions

1. Describe the student enrollment patterns in the University of Zambia since 1999.
2. Have the enrollment patterns been consistent with infrastructural development in the university?
3. How has the growing student population affected the administrative apparatus of the university?
4. How best do you think the operations of your office can be sustained in the light of expanded enrollments in the university?
5. Any final word on the implications of expanded enrollments at UNZA and CBU?

Thank you, very much for your Time

Appendix F: Interview Schedule for the Respective Deputy Registrars in Charge of Administration and/ or their Representatives at both UNZA / CBU



**The University of Zambia
School of Education
Department of Educational Administration and Policy Studies**

The Deputy Registrars (Administration)
The University of Zambia
The Copperbelt University

I am a Staff Development Fellow in the Department of Educational Administration and Policy Studies at the University of Zambia and I am presently reading for my Master of Education in Educational Administration. My research is entitled *“The Quality-Quantity Trade-off: Implications of Expanded Enrollments at Two of Zambia’s Public Universities”*.

I am kindly requesting you to answer a few questions in the following interview which is the main research instrument in my study. I shall appreciate your cooperation in this research. Be further informed that this is a purely academic undertaking and the findings of this research will be used for strictly academic purposes. You, however, reserve the right to withhold your consent for participation in this interview. Your anonymity is hereby strongly guaranteed. It is further guaranteed that permission will be sought from you before quoting you, even anonymously. If you accept to participate in the interview kindly sign in the space provided below.

Ferdinand M. Chipindi

I _____ hereby declare that I have freely given my consent to the said Ferdinand M. Chipindi to ask me some questions in relation to his Master of Education in Educational Administration studies. I do understand and accept that the contents of the interview will be used for strictly academic purposes and that the said Ferdinand M. Chipindi will ask my permission before quoting me even indirectly.

Sign.....

Date.....

Interview Questions

1. How has the growing student population affected administrative apparatus of the Copperbelt University/ University of Zambia?
2. How best do you think the operations of your office can be sustained in the light of expanded enrollments in the university?
3. Any final word on the implications of expanded enrollments at UNZA and CBU?

Thank you, very much for your Time

Appendix G: Interview Schedule for Bursars and /or their Representatives at CBU and UNZA



**The University of Zambia
School of Education
Department of Educational Administration and Policy Studies**

To the University Bursars
Copperbelt University and University of Zambia

I am a Staff Development Fellow in the Department of Educational Administration and Policy Studies at the University of Zambia and I am presently reading for my Master of Education in Educational Administration. My research is entitled *“The Quality-Quantity Trade-off: Implications of Expanded Enrollments at Two of Zambia’s Public Universities”*.

I am kindly requesting you to answer a few questions in the following interview which is the main research instrument in my study. I shall appreciate your cooperation in this research. Be further informed that this is a purely academic undertaking and the findings of this research will be used for strictly academic purposes. You, however, reserve the right to withhold your consent for participation in this interview. Your anonymity is hereby strongly guaranteed. It is further guaranteed that permission will be sought from you before quoting you, even anonymously. If you accept to participate in the interview kindly sign in the space provided below.

Ferdinand M. Chipindi

I _____ hereby declare that I have freely given my consent to the said Ferdinand M. Chipindi to ask me some questions in relation to his Master of Education in Educational Administration studies. I do understand and accept that the contents of the interview will be used for strictly academic purposes and that the said Ferdinand M. Chipindi will ask my permission before quoting me even indirectly.

Sign.....

Date.....

Interview Questions

1. Describe the funding patterns to the university since 1999
2. Has the funding patterns been consistent with the growing numbers of students entering the university?
3. How has the growing student population affected the operations of the Bursar's office?
4. How best do you think the operations of your office can be sustained in the light of expanded enrollments in the university?
5. Any final word on the implications of expanded enrollments at UNZA and CBU?

Thank You Very Much for Your Time