MANAGERIAL CONTROL OF RESOURCES AND INFRASTRUCTURAL FACILITIES AS CORRELATES OF STUDENTS' ACADEMIC ACHIEVEMENTS IN STATE COLLEGES OF EDUCATION IN SOUTHWESTERN NIGERIA

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CERTIFICATION

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DEDICATION

This work is dedicated to God and

my parents

Mr. Amos Agunbiade Idowu

Late Mrs. Alice Tewogbade Idowu

Though they were not educated, they ensured I am educated

My Wife

Mrs. Ninilola Funmilola Idowu

and

Children

Olumuyiwa Oludare Idowu

Omobola Odunayo Idowu

Aanuoluwapo Temitope Idowu

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ABSTRACT

The demand for education in Nigeria has led to overcrowded classrooms as well as overstretched teachers and facilities. The social-economic instability, the standard of education in the country and the managerial control of resources have constituted major problems to students' academic achievement. This situation has become a national concern to all stakeholders. Prior studies have concentrated on availability and mobilisation of resources. In spite of several studies on availability and mobilisation of resources, the quality of products of tertiary education in Nigeria remains a subject of discourse. This study therefore examined the extent to which managerial control of resources (human, financial and material resources) and infrastructural facilities (transportation and accommodation) correlates with students' academic achievement in state colleges of Education in Southwestern, Nigeria.

The study adopted the descriptive survey research design of the *ex-post facto* type. The stratified random sampling technique were used to select 600 students, 200 academic staff, 200 junior non-academic staff and 200 senior non-academic staff from six pioneer state colleges of education. Instruments used for the study are Managerial Control Inventory (Human, α=0.96), (Financial, α=0.75) and (Material, α=0.84) and Infrastructural Variables Inventory (Transportation, α=0.86) and (Accommodation, α=0.94). These were complemented with data from the examinations and records departments in all the selected colleges. Seven research questions were answered and seven hypotheses tested at the 0.05 level of significance. Data were analysed using Pearson Product Moment Correlation and Multiple Regression.

Managerial control of resources and infrastructural variables taken jointly correlates significantly with students' academic achievement and accounted for 44% of the variance of students' academic achievements. Relatively, the components of the managerial variable contributed to academic achievement in the following order: human resource (β=0.39, t=11.23, p<0.05) and financial resource (β=0.14, t=4.07, p<0.05). However, material resource did not make significant contribution to the prediction of academic achievement. Infrastructural facilities contributed to academic achievement in the following order: transportation (β=0.20, t=4.82, p<0.05) and accommodation (β=0.12, t=3.20, p<0.05). On the whole, the mean score of the students' examination results collected from the six selected colleges of education range was ($\bar{x}$ =51.64). This value showed that the academic achievement of the selected colleges were on the average. Furthermore, the managerial variables (r=0.57) and infrastructural facilities (r=0.44) independently correlated significantly with students' academic achievement.

Managerial control of resources and infrastructural facilities are critical factors in relations to academic achievement of students in colleges of education. The management of the colleges should ensure that the available resource - human, financial and material - are judiciously managed and the college authority should provide good hostel accommodation and effective transportation system for the use of the students. The management of colleges should ensure that college libraries operate for the use of students on weekends.

Key words: Managerial control, Resources, Infrastructural facilities, Colleges of education, Students' academic achievement

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CHAPTER ONE
INTRODUCTION

1.1   Background to the Study

Students' learning can be assessed in many different ways but in a developing country like Nigeria, parents use academic achievement or the performance of their children in public examinations to assess schools and teachers (Barley, 1998). To them, the logic is a simple one. The schools are supposed to be staffed by good teachers, supplied adequate learning facilities and instructional materials. It is the responsibility of government to ensure through such provisions and regular inspection or supervision that effective teaching and learning go on in the schools. It is the responsibility of parents to send children to school and pay whatever fees and levies that are charged by the institutions (Ogunseye, 2000).

Though many parents and the country at large, acknowledge shortages of learning facilities and instructional materials in schools and their inability to buy all the required texts and other learning materials for their wards, they strongly believe that if students perform badly in their examinations, teachers and administrators have not done their jobs well and should be blamed for the students' poor performance (Squelch, 1999).

In Nigeria, the demand for education has led to overcrowded classrooms as well as overstretched teachers and facilities (Ukeje, 2001). With political and social instability, economic recession and consequent government inability to adequately supply needed funds, teachers and infrastructure to cope with the increased students' enrolments, the quality of learning and academic achievement outcomes and standards attained by graduating students have become questionable and of national concern (Imogie, 2002).

Moreover, cases of examination malpractices, indiscipline, cultism and high failure rates have led to loss of public confidence in schools and there is a vigorous search for strategies to remedy the crisis situation (Ukeje, 2001). Wealthy parents resorted to searching for alternatives to public schools. They were prepared to pay huge sums of money for good quality education in private schools or send their children to other countries where the standard of education was adjudged higher than that in Nigeria (Ukeje, 2001).

To this end, the big dilemma of how to improve the school system and raise public confidence in it has become a great concern in Nigeria. If the trend continues, it may lead to total abandonment of the public schools in Nigeria (Adenuga, 2003). In Nigeria, the quality and standard of education vis-à-vis the academic achievement of students are influenced by many factors. The major among these is: generation of resources. This connotes the revenue generation capacity of the colleges of education such as school fees, levies, philanthropists' gifts and other sources available to the colleges for the realisation of good students' academic performance (Babalola, 2003).

The Education and Training Sector Development Programme recognises the fact that it is not easy for government and parents alone to shoulder the burden of financing education. Efforts have to be made to identify other stakeholders and beneficiaries, especially the business community, non-governmental organizations (NGOs) and graduates who have become prominent individuals to make donations both in cash and kind for the smooth running of colleges (Samuel, 1990). This will go a long way to enhance the academic achievement of the students. Another factor is effective management of resources, this requires that the resources provided for colleges of education are adequate and should be well applied. This involves the level of use of the financial, human, materials and physical resources in achieving students' learning success in colleges of education in Nigeria. It is the ability to achieve the desired educational objectives through effective application of the available resources. Funding of education has become a major concern to stakeholders in education. Oni (2002) called for a national conference to discuss the problem of education in Nigeria and recommended suitable ways of funding it. Also, Berg (2004) and Akinnosa (2008) in their respective studies revealed that less than eight per cent of the annual budget is allocated to education while Fabunmi (1997) reports that the proportion of recurrent expenditure that goes to education has fluctuated and dropped over the years and ranges from 10 to 30 per cent. Igbuzor (2006) observes that statistics of Federal Government expenditure on education between 1997 and 2000 was below 10 per cent of expenditure. All these have undesirable effects on students' learning outcomes in educational institutions in Nigeria.

These scholars maintained that, a healthy school is the one in which leadership and management capacity are developed in all staff and other constituencies, through ongoing personal and professional development processes. The ability of the state to raise the revenue required to provide basic services; the budgetary priority accorded

education sector and donations, school fees, levies, philanthropists' gifts and other sources available to the school for the realisation of good students' performance require further tapping to supplement state government grants also, the degree of priority allocated to colleges of education among the different levels of education should be increased (Adedeji, 2003).

Afonso and Aubyn (2005) trace the factors contributing to the falling standards of education to the advent of the military in civil governance of the country. They point out that schools were deprived of adequate funding, old infrastructure were not replaced or repaired and teachers who were previously well-remunerated suddenly became overworked and underpaid. Another, factor was lack of adequate personnel. According to Ayara (2002), improving the quality of education depends first on improving the recruitment, training, social status and conditions of teachers. Today, the staffing crisis has shifted to government's inability to employ well-trained teachers to fill vacancies in the schools simply because finance is inadequate (Imogie, 2002). Therefore, many classrooms remain without teachers. In some cases, classrooms are overcrowded with students under one teacher and teacher-student ratio can be as high as one to 60 in a secondary or college of education instead of the approved ratio of one teacher to 35 or 40 students. How can effective teaching and learning take place in such an overcrowded classroom manned by over worked teachers?

Adeogun (1992) defines educational resources as the available facilities that can be used to achieve educational goals and objectives. They are materials, financial, human, transportation, accommodation and symbolic resources). Also, Blandford (2000) emphasises that availability and effective transportation system contribute to academic achievement. Resources management connotes various ways resources can be effectively put to use. All the resources allocated to schools, if prudently managed would lead to good students' learning outcomes but nowadays, there is gross mismanagement of available resources while management and administration remain inefficient (Adedeji, 1998).

A school is expected to be a place where learners can concentrate on their studies without bothering about issues of discipline, safety and security (Naicker & Waddy, 2003b). This is not always the case, as a number of schools have to deal with unattractive school buildings, crowded classrooms, non-availability of playground and surroundings that have no aesthetic beauty, all these contribute to poor academic

achievement (Hallak, 2001). Although, certain teaching strategies can be effective even for very large classes, students are often unruly in such settings. Moreover, teachers in large classes tend to focus on rote learning, rather than on problem-solving skills (Psachoropoulos and Woodhall, 2001). Lockheed (2002) discovers that quality of education is much higher when the pupil-teacher ratio is low and this improves students' academic achievement.

The term academic achievement has become a determining factor in facilitating international support for educational expansion and development initiatives. Walker (1990) observes thus: we all know quality when we experience it but describing and explaining it is a more difficult task. In our everyday life we usually take quality for granted, especially when it is regularly provided. Yet, we are all readily aware when it is lacking. We often recognise the importance of quality when we experience the frustration and time-wasting associated with its absence.

The major problem of admitting unqualified students with three credits in senior secondary school certificate examinations to pursue courses at the colleges of education could lead to poor academic performance. All these lapses could be responsible for the turning out of half-baked graduates from our colleges of education

Previous researches have concentrated on non-managerial resources like availability and mobilisation of resources while this study focuses on managerial control of resources. The previous researches on availability and mobilisation of resources have been well-researched and documented but more is required on how managerial control of resources relate to students' academic achievement in colleges of education.

Therefore, managerial control of resource initiates resource allocation to facilitate the access of disadvantaged schools to quality inputs and assets and increase efficiency in the application of resources through monitoring and tracking (Ogunseye, 2000). This serves as an institutional mechanism to promote coordinated allocation of resources, application of existing education and training facilities or harmonisation of training programmes and awards among the subsectors.

At present, Nigeria has 36 states and the Federal Capital Territory (FCT) Abuja, the federal capital of Nigeria. These states are clustered into six zones, namely North East, North Western, North Central, South East, South West and South South for effective distribution of social amenities in the country.

The south western zone consists of six states namely: Ekiti, Lagos, Oyo, Ogun, Ondo and Osun. There are six state-owned colleges of education, four federal colleges of education and 11 private colleges of education in the south western part of Nigeria, chosen for the study because it was the first zone in Nigeria to introduce free education. Also, majority of the state governments in the zone always claim they spend greater percentage of their annual budgets on education. Therefore, a research needs to be carried out to find out whether or not the output of the colleges of education in this zone justify the acclaimed spending on them.

1.2 Statement of the Problem

Foremost, poor funding is a cardinal problem of most states in Nigeria and the federal also inclusive. This problem is well-reflected by the fact that no state government and indeed, the Federal Government that had committed the stipulated 26% of their national income budget to education sector as requested by UNESCO. This perhaps explains the deplorable state of our education sector. Paradoxically, over the years, even during peace time, defence got more allocations from the budget than education. Second, the infrastructural facilities of the education sector in general and colleges of education in particular are in poor state, in line with our poor maintenance culture. Thus, structures, laboratories, libraries and pertinent facilities have not been properly maintained. Third, observably the limited fund provided those who run our colleges of education have been poorly managed. Poor funding and lack of infrastructural facilities in colleges of education without any doubt affect the students academic achievement in colleges of education.

Therefore, the consequent under-achievement by our learners and the worrisome state of our education sector is a great concern to the educators and the government alike. Arising from the foregoing, the study sought to investigate if the managerial control of resources and infrastructural facilities as correlates of students' academic achievement in state colleges of education in South Western Nigeria.

1.3 Purposes of the Study

The broad purpose of the study is to highlight or bring to the fore the link between managerial control of resources/infrastructural facilities and students academic achievement in state colleges of education in South Western Nigeria.

The specific purposes are to:

- determine the perception of respondents on the academic achievement of the students in selected colleges of education;

- establish the relationship between level of resources and level of academic achievement;

- affirm the relationship between materials resource control of resource and students' academic achievement;

- establish the relationship between financial resource control and students' academic achievement;

- establish out the relationship between human resource control and students' academic achievement;

- establish the relationship between transportation facilities control and students' academic achievement; and

- determine the relationship between accommodation facilities control and students' academic achievement.

1.4   Research Questions

The following research questions were addressed in this study.

1.   What is the level of material resource control as indicated by maintenance department?

2.   What is the level of financial resource control as indicated by accounts and bursary departments?

3.   What is the level of human resource control as indicated by selected heads of departments and establishment departments?

4.   What is the level of transportation facilities control as indicated by the maintenance departments and selected heads of departments?

5.   What is the level of accommodation facilities control as indicated by estate management and students' affairs department?

6.   What is the level of academic achievement of colleges of education students in south western Nigeria?

7.   What is the perception of respondents on the academic achievement of students in selected colleges of education in south western Nigeria?

1.5 Research Hypotheses

The following hypotheses were tested at 0.05 level of significance.

HO_1: There is no significant relationship between materials resource control and students academic achievement.

HO_2: There is no significant relationship between financial resource control and students' academic achievement.

HO_3: There is no significant relationship between transportation facilities control and students' academic achievement.

HO_4: There is no significant relationship between accommodation facilities control and students' academic achievement.

HO_5: There is no significant relationship between human resource control and students' academic achievement.

HO_6: There is no significant composite behaviour of the five managerial control of resources variables viz: material, financial, human resources control on infrastructural facilities, transportation and accommodation on students' academic achievement.

HO_7: There is no significant relative effect of each of the five managerial resources control variables on students' academic achievement.

1.6 Significance of the Study

The outcome findings of this study should better inform state governments that established colleges of education on the need to accord colleges of education priority during the yearly financial allocation to various sectors of economy. This study will hopefully broaden the ideas of educational planners and policymakers in education on the need to allocate adequate materials resource to colleges of education in order to realise good students' academic achievement.

It would serve as an eye opener to provosts of colleges of education to have an effective and good management of the resources (materials resource, financial resource, human resource, transportation facility and accommodation facility) provided for the institution.

Also, it is envisaged that members of the public, educators, researchers, individuals and other stakeholders on education policy with respect to colleges of education would be better informed on the importance of the human resource factor to students' academic achievement.

The outcome findings of this study should assist colleges of education in identifying the various strategies that can be adopted to provide adequate accommodation for their staff and students.

Further, the outcome findings of this study will shed light on the modalities of providing good transportation system for students and staff of their institutions in order to achieve good learning outcomes.

1.7 Scope of the Study

The study focused mainly on the managerial control of resource variables as correlates of students' academic achievement in colleges of education in south western Nigeria. The scope of this study therefore covered south western geo-political zones in Nigeria, consisting of six states, namely; Ekiti, Lagos, Oyo, Ogun, Ondo and Osun. All the six states' colleges of education would be covered in the study.

1.8 Operational Definition of Terms

The meaning of the following terms are explained as they are used in this study, that is, operationally defined:

Managerial Control of Resource: This refers to the effort of the college to effectively manage the available resources.

Infrastructural Facilities: This refers to the management of good transportation system and adequate accommodation for the use of students and staff of the college.

Colleges of Education: This is a place where students go to study or to receive training as grade one teachers after the completion of their secondary education.

Resources: These refer to the inputs provided for colleges of education such as material, financial and human resources to increase the students' future production.

Students' Academic Achievement: This refers to the performance of the student in their academic programme.

Academic Staff: This refers to the Heads of Departments and other lecturers covered as respondents in the study.

Non-academic Staff (Junior): This refers to the technicians working in the maintenance sections of the colleges.

Non-academic Staff (Senior): This refers to those people working in offices in the colleges of education.

Accommodation Facilities: This refers to the number of students' hostels, lecture theatres and staff quarters available in the colleges.

Human Resources: This refers to the number of students being trained as potential human resource, lecturers, non-academic staff (junior and senior) available in each of the colleges of education.

Financial Resources: This refers to the amount of money generated by each of the colleges to run the institution.

CHAPTER TWO
REVIEW OF LITERATURE

The review covers the following:

2.1   Studies in Managerial Control of Resource

- Managerial Control of Resource and Academic achievement.

- Material Resource Control and Academic achievement.

- Financial Resource Control and Academic achievement

- Human Resource Control and Academic achievement

- Transportation Facilities Control and Academic achievement

- Accommodation Facilities Control and Academic achievement

- Studies on Academic Achievement

2.2   Appraisal of Literature

2.3   Theoretical Framework

2.1   Studies in Managerial Control of Resource

2.1.1   Managerial Control of Resource and Academic achievement

Operational statements describe specific student behaviours that evidenced the acquisition of desired knowledge, skills, abilities, capacities, attitudes or dispositions.

Academic achievement in education is now crucial in Africa's strategic plans towards catching up with the developed world. While the notion of academic achievement and priority focus may differ from country to country, the term has become a determining factor in facilitating international support for educational expansion and development initiatives. Understanding the geographical context of quality in education, what its indicators are within the culture milieu of particular countries, the challenges associated with implementing quality education are, therefore, significant.

The concept of academic achievement is very evasive. It is perplexing to define and often difficult to come by an agreed formal definition for the term. One person's idea of academic achievement often conflicts with another and, as we are all too aware, no two experts ever come to the conclusions when discussing what makes an academic achievement in school, college or university (Fabunmi, 1997).

Leedy (1993) put it thus:

> *We all know achievement, when we experience it, but describing and explaining it is a more difficult task. In our everyday life we usually take achievement for granted, especially when it is regularly provided. Yet we are all too acutely aware when it is lacking. We often only recognise the importance of achievement when we experience the frustration and time-wasting associated with its absence* p. 52.

Lemmer (1998) has consistently held the view that standards in education have not declined, rather, the expectations have changed as more people participate in education enterprise as teachers, students, examiners, employers, administrators and parents. Lemmer (1992) on his part has argued that we should concern ourselves more with quality of education provided which he believes has definitely declined, since standards as criterion measure, should be seen as established and set to guide our aspirations.

Ogunseye (2000) and Ukeje (2001) do not agree with Chumonso (2005) that discussion about purposes and aims of education are among the dullest and most fruitless of human pursuits. It is important that educators in Africa begin to spend more time examining what goes on in the schools in relation to why governments and tax-payers spend so much of national income on education. We need to assess the results or outcomes from the schools to ensure students are actually receiving expected education since mere schooling is not synonymous with education.

The crisis in Nigerian education can be traced to four main sources: teachers, facilities, funding and management. Students' poor performance in academic work and behaviour are manifestations of the problems associated with the staffing of the schools, inadequate facilities and funding (Ogunseye, 2000). The situation is aggravated by inefficient and ineffective planning, organisation and management of the available human and material resources. To begin with, the problem with staffing the schools is no longer that of unavailability of trained teachers.

The problems of shortage of teachers, facilities and funds are compounded by management crisis. If the public has lost confidence in the education system because it is turning out half-baked products, many accusing fingers point at those who manage the Ministries of Education and the educational institutions. Principals and teachers are blamed for negligence of duty (Ukeje, 2001). They, in turn, blame

government and parents for not being supportive to their efforts to organise and manage the students.

Another management problem that has tremendous impact on teaching and learning in the schools is the political and economic instability that the country has been subjected to since independence in 1960, (Oni, 2002). The military had used coups to intervene several times in governance, thus leading to much uncertainty, instability and frequent changes of education policies. There was even a 30-month Nigeria – Biafra civil war between 1967 and 1970. The consequences had been education projects and programmes that were hastily formulated and implemented, while some were abandoned half-way, simply because a new military or civilian government took over. These have negative effects on school operation.

There is indiscipline among government officials, principals, teachers, parents, students and officials of examination bodies. Prinsloo (2003) blames students' unrest and indiscipline in schools on general indiscipline in the society, caused by the break-down of law and order, excessive pursuit of money, material things and power; changing cultural values and parental abandonment of the responsibility to train and discipline their children at home. On the raising of staff morale and motivation, Rault-Smith (2004) opines that the long awaited Teachers' Registration Council should come into operation as a regulatory body, while a career service system should be adopted for teachers. He insisted that conditions of the teaching service be improved by collective bargaining and other forms of real negotiations and not collective begging.

Several factors contributed to the decline in quality of higher education in Africa. These include a decline in per unit costs (from US $6,800 in 1980 to US $200 in 2002) amid rapidly rising enrolments, insufficient number of qualified academic staff in higher education institutions as a result of brain drain, retirements and HIV/AIDS low internal and external efficiency and poor governance, (NERDC, 2000).

At the heart of school life are leadership, management and governance. It is these aspects of school life that ensure that all other aspects are held together and developed (Davidoff & Lazarus, 2002:36). Thus, the key purpose of evaluating this area is to assess the effectiveness of the leadership and management of the school at the various levels in the management structure (Department of Education, 2001 d:9). Effective educative-teaching can only take place in a school that is well managed at

every level. Therefore, it is not only the principal who plays a crucial role in the functioning of the school; other leaders in the school also play critical roles. These include deputy principal/s, head of departments and senior educators. Together, they form the school management team. These individuals can only be effective if they work as a team. As Pretorius (1998:105) puts it, a true culture of teamwork is imperative. Davidoff and Lazarus (2002:37) concur and maintain that a healthy school is one in which leadership and management capacity is developed in all staff members and other constituencies, through ongoing personal and professional development processes.

The key to full realisation of effective schooling in a reformed and restructured education system depends on the capability of the leaders and the staff at the school level (Samuel, 1990). According to the Department of Education (2001 d:9), evaluation should be conducted and then judgements and report must be made on the effectiveness of the following; the school's vision and mission statement, aims, policies and procedures; the leaderships at various levels in the staffing structure, for example, the principal and school management teams; the extent to which the staff and school community as a whole understand those intentions and carry them out; the extent to which the policies and procedures help the school attain its aims and improve. Davidoff and Lazarus (2002:36) are of the opinion that it is these aspects of school life that ensure that all other aspects are held together and developed.

An international trend in education reform is the devolution of decision-making powers from central level to the school level (Steyn, 2002a:251). As Squelch (1999:131) puts it, the movement towards decentralised school governance is a global phenomenon. According to Squelch (1999:128), this approach to governance assumes that decentralised decision-making authority is the key to improving schools and raising learners' performance levels. Thus, the school governing body should always work together with the principal, the educators and other stakeholders for the welfare of the school and the learners. Sack (2002) regards the school governing body as the official mouthpiece of the parents, the educators and the learners of the school on all matters other man those relating to the professional administration and management of the school. However, Squelch (1999:129) maintains that the degree to which authority is transferred to school governing bodies varies greatly in education systems.

The school governing body should act as a bridge between the school and the community. Thus, for the school governing body to avoid conflicts and/or the clash of interest with these stakeholders, members should know its functions and boundaries. According to Section 20 of the South African Schools Act (RSA. 1996:16), school governing bodies have to perform a number of functions. If a governing body does not perform its functions properly, the head of the department may withdraw it on reasonable grounds and provided that he/she follows correct procedures (Squelch, 1999:141). The supervisory teams (external evaluators) during the whole-school evaluation have to evaluate if these functions are being effectively performed. The key purpose is to assess the effectiveness of the governing body in giving the school clear strategic direction in line with the South African Schools Act (SASA), the National Education Policy Act (NEPA) and other related legislation (Department of Education, 2001d:9).

According to Squelch (1999:130), governance is considered to be a more effective means of improving standards of teaching and creating effective schools because it is more inclusive and seeks to meet the collective needs and aspirations of the community. Therefore, the supervisory team must make judgements and report on the effectiveness of the following: the constitution of the governing body and any terms of references; the organisation of the governing body and its committees; its membership; the part it plays in the formulation and implementation of the school's aims and policies: the suitability and effectiveness of the policies and systems it has for monitoring and evaluation the quality of education provided by the school.

Quality does not simply refer to teaching and learning but is also linked to capacity, the appropriateness of the curriculum, the commitment of both the educator and the learner and the way standards are set and assessed (Van Wyk & Mothata, 1998:4). Davenport (2002) add to this by describing quality in education as inter alia, the factors such as learners' achievements, teaching approaches and the nature (physical, cultural and social) of the school This means there is a need to infuse the system with the will and capacity to make continuous improvements at all levels (Van Wyk & Mothata, 1998:4). Thus, the first purpose is to evaluate the overall quality of teaching throughout the school and how well it helps all learners to learn and raise their levels of performance and attainment. The second is to judge the quality of in-service professional development enjoyed by educators as highlighted by reports and

the professional growth plans of the developmental appraisal system and other related initiatives (Department of Education, 2001d:9).

Davies and Ellison (1995) maintain there is controversy regarding the validity of measurements of quality. They argue that one set of criteria or standards to measure quality formulated by one stakeholder may not suit the needs of another. Davies (1997) regard clients' (parents, learners and educators) satisfaction as an indicator of quality or school effectiveness. As Dean (1995) puts it, quality is an issue that cannot be avoided in education. Thus, during external evaluation, supervisors must make judgements and report on the effectiveness of the following: educators' planning and schemes of work/work programmes; educators' expectations of the learners; the educator's subject/learning area/programme knowledge: the teaching strategies the educators use; the educators' use of resources: the way educators control and manage the learners et cetera (Department of Education, 200Id:9-10). If all learners are to realise their potential, then their schools must also realise their potential (Stoll, 1999:504).

Department of Education (1997) contend that the restructuring of schools, the composition of National and Provincial curricula, the development of benchmark assessments - all these things are of little value if they do not take the educator into account. Steyn (2002b:250) concurs and maintains that focusing on the people in the organisation (the school) is the key to quality and meaningful improvement in schools and organisations. The dividends yielded include a more effective school and, therefore, improved learner achievement, greater satisfaction and higher morale. Therefore, for the school to develop, educator development should become a priority. Steyn (2002b:250) is of the opinion that schools and other organisations that fail to provide opportunities for professional development jeopardise their ability to meet organisational goals. During whole-school evaluation, supervisors have to establish whether the school has programmes for staff development and how effective these programmes are.

The purpose is to evaluate the quality of the curriculum and how closely it matches the needs of the learners and any national or local requirements. Judgement has to be made on the range and quality of other activities that enhance the curriculum (Department of Education, 2001d:10). Eisner (1994) maintains that curriculum documents are generally written in broad terms and, therefore, do not cater directly for the specific needs of individual schools. Consequently, educators need to translate

curriculum guidelines into specific teaching programmes of sufficient detail to guide day-to-day activities. Educators always rely on the school management teams for guidance and support. The school management teams, particularly the Heads of Departments and the senior educators should ensure that they provide educators with all the necessary information and the required resources.

Everard and Morris (1996) contend that to implement the curriculum and realise the vision of quality education effectively, the school management teams must have a very good understanding and insight into the curriculum policy documents. Without such understanding, the school management teams cannot guide and support educators to implement the curriculum. Therefore, during the external evaluation (whole-school evaluation) the supervisor}' team must make judgements and report on the effectiveness of the following: the balance between the National and Local curriculum; the structure of the curriculum: the planning process; how suitable the curriculum is for learners of different ages and abilities; the school assessment policies and practices, their relevance to the curriculum and the provision for extra-curricular activities (Department of Education, 200Id: 10). Education Labour Relation Council (2003) concurs and maintains that the implementation of curriculum is the core business of the school. Therefore, it should be determined what is happening inside and outside the classroom should be determined in order to assist where necessary.

The main purpose of external evaluators is to evaluate the achievement of the learners and assess the knowledge, skills, attitudes and values that learners have acquired. Particular- attention must be paid to levels of performance in communication skills, problem solving skills and the ability to work in groups and to make responsible decisions (Department of Education, 200Id: 10). Eurydice European Unit (2006) concurs and maintains that through education, learners can be equipped with such knowledge, skills, attitudes and values which can help to make them active and valuable participants in creating a better country and a better future for all.

According to Kill en (1999:12), educators must provide learners with sufficient opportunities to practice using the new knowledge and skills they gain so that under the educator's guidance they can explore and experiment with their learning, correct errors and adjust their thinking. Thus, it is essential to assist learners to apply their new knowledge and skills rather than just accumulate it. According to the Department of Education (2001d:10), supervisors must, among other things, make

judgements and report on the effectiveness of the following: learners' achievements in reading, speaking and writing in the language of teaching and learning and one other additional language; learners' standards in numeracy and in all other subjects/learning areas/programmes and the progress made by learners in the light of their known prior achievements. As Fagerlind and Saha (1997) put it, teaching is only teaching if learners learn. Therefore, educators should make a great effort to ensure learners do not only see the need for learning but also become actively involved in the learning process. Stoll (1999:505) is of the opinion that learning outcomes are important but without attention to the learning process they cannot be achieved.

Educators, therefore, have the responsibility to teach learners to think critically and to solve problems in their specific learning areas. Fataar (1997) maintains that paying attention to learners' perceptions and intentions can help to enhance the quality of learners' learning and achievements. Thus, Killen (1999:20) contends that no matter how an education system is organised, some people will always want to make comparisons between the achievements of learners. Whilst it is often not possible to avoid situations like these, it is important to avoid making unfair comparisons. As a result Killen (1999:20) is of the opinion that fair inferences can only be drawn from assessment results, and valid comparisons if assessment data include information on the nature of the learners, the learners' opportunity to learn the material assessed, the adequacy of resources available to the learners and the methods of assessment.

This is not always the case, as a number of schools have to deal with disciplinary issues most of the time. The educators and the learners live in fear of being attacked/assaulted or being injured. As Glasman and Heck (1992) contends, frustrated school principals in South Africa have spoken out on the alarming increase in crime by armed learners and these principals have warned that lenient education policies are seriously hampering the enforcement of discipline.

Likewise, Fataar (1997) maintains that in South African schools, issues that have to do with discipline, safety and security have become of increased concern following incidents of robbery, assault, drug dealing and even murder on the school premises. Discipline has become a problem in many schools worldwide. Fullan (1993) agrees, adding that learners steal, smoke and drink, behave in age-inappropriate ways sexually, bully other learners, are disruptive during lessons and form gangs in schools believing they are untouchable. Garrett (1997) concurs that the

issue is not the degree of school crime but the impact it has on the quality of learners' education. Learners stay away from school because of fear of personal safety.

Therefore, the external evaluators should evaluate school safety, security and discipline measures that are being implemented in the school. According to the Department of Education (2001d:ll), one purpose is to evaluate the extent to which the school knows about legislation which concerns learners' rights and the effectiveness with which it implements it. Another is to ensure the school is secure and learners are safe. The third is to evaluate the effectiveness of the school's disciplinary procedures. Van Wyk (1999b:89) contends that quality education diminishes in a climate of violence and fear. Therefore, supervisors must make judgements and report on the effectiveness of the following: the school's procedures for safety, security and discipline and their implementation; safety regulations in laboratories and workshops and other areas of the school; emergency procedures and how well they are known by learners and staff: the provision for boarders; the support and care for learners and the school's disciplinary procedures (Department of Education, 2001d:ll).

Schools are under increasing pressure to develop strategies for securing greater parent involvement (Squelch & Lemmer, 1994:91). Pretorius (1999:158-159) concurs that an important aspect emphasised in global reform is that schools alone cannot resolve the supposed failures of the education system but that it is the shared responsibility of communities. Thus, co-operation, a joint effort from parents, educators and other community structures is what is required. As a result it should be determined during the external evaluation as to whether parents and community are involved in the school activities and what role/s these individuals play to ensure that mere is quality education in the school. As Squelch and Lemmer (1994:92) put it, the time when parents' only link with the school was to attend the annual parents' evening is over, not only because family life has changed but also because schools need and require parents' support.

The Department of Education (2001d: 11-12) lists the following as the purposes of evaluating this area (parents and community): to gauge the extent to which the school encourages parental and community involvement in the education of the learners and how it makes use of their contributions; to estimate the value to learners' education of the exchange of information between parents and school about them; to ascertain the response of parents and to evaluate the links between the community and the school. Lemmer (2000:68) contends that schools must become

places where families feel wanted and recognised for their strengths and potential. This is not often the case and the schools do not always welcome parents.

According to the Department of Education (2001 d: 12), the supervisory team must make judgements and report on the following:

- The school's communication with parents and the way the school responds to the complaints and suggestion that come from the parents;
- The system for reporting to parents about the progress their children are making and the standards they are reaching;
- The contribution that parents make to the school and to learners' education through any committees or support for the school's resources;
- The school's guidance for parents to help them in their understanding of the work their children are doing;
- The school's involvement with the local community and how this affects learner's educational experience and curricular activity;
- The methods the school uses to educate learners in the use of the local environment;
- The range of joint activities undertaken by the school and community in the interests of the learners.

This shows that effective education requires close co-operation between educators and parents/community (Squelch & Lernmer, 1994:92). This co-operation can, to a larger extent, help the school to understand the learner better as the school knows the background of the learner as well as that of the parent/s. A learner that knows that educators know his/her parent/s is more likely to behave appropriately as he/she knows that the school is in close contact with the parent/s. Thus, schools should become more open to parents and should regard them as partners in educating the learner. But Lemmer (2000:64) warns that good school, family and community partnerships cannot just lead to unproved academic learner achievement, self-esteem, school attendance and social behaviour. Rather, partnership activities should be designed to engage, guide and motivate learners to produce their own successes.

Naicker and Waddy (2002:17) regard the above key areas as of major importance as they ensure that the evaluation covers all aspects of the school. These aspects are examined during both the school's self-evaluation and the external

evaluation. But if there is a need any other additional area for evaluation can be included.

Academic planning according to Rhodes University (2003:1of 2) is the process of decision making in respect of the range of educational programmes offered and the resources allocated to them in order to realise the vision and mission of the department and the university. Academic planning is thus about what courses, programmes are offered, where, when how and by whom and what resources are necessary to run them. It also involves identifying and evaluating new academic initiatives and general trends.

The major goal of academic planning, according to Stephenson (2003: 2 of 2) is to make the most effective and efficient use of staff resources, physical facilities and operational funding, thereby ensuring a 'fit' between the institutional mission and the resources available.

Academic planning according to Rhodes University (2003:2 of 2) enables the University to

- Plan at the departmental level; to consider the range of courses offered and their long term viability as well as to give departmental staff and the under university community an opportunity to be involved in academic planning;
- Review the existing use of resources in academic departments;
- Identify, evaluate and incorporate where appropriate, new academic departments;
- Look for synergies at departmental level, not simply to economise but in order to free up resources for new initiatives;
- Appraise and encourage researcher;
- Identify and develop community service activities;
- Consider progress made in relation to previous review recommendations;
- Highlight areas of good practice;
- Ensure departmental activities fit in with the institutional strategic plan;
- View departments in their institutional as well as national and international contexts;
- Identify quality assurance (QA) procedures at the departmental level, and to ensure they are consistent with the university as a whole;
- Consider feedback from departments on the review process.

Academic planning is a thoughtful determination of a course of action to achieve a desired educational goal. According to Nwachukwu (1987:12) planning must be realistic and capable of implementation, have clearly defined objectives in terms of scope, accuracy and definitiveness; must be comprehensive and flexible enough to take care of what takes place in our dynamic environment.

The unit of Academic Planning and control according to NUC (2001:50) was established in Nigerian Universities in the early 1980s in response to the need to coordinate and streamline the academic policies and activities arising from, the sudden and sometimes uncoordinated growth and development, proliferations of programmes and or units in the Nigeria University System. There also arose the need to address the problem of data collection, and management to guide the orderly academic development of each University. This orderly development by and large involves Universities compliance with NUC'S Minimum Academic Standard and norms, and each University Senate's stipulated academic requirements.

With the establishment of the Office of Academic Planning and control in various Universities charged with the performance of certain clearly defined duties, it became possible for a uniform academic direction and purpose to be put in place and serve as a beacon for academic development in the various Universities.

The Academic Planning and control Unit is an integral part of the Office of the Vice-Chancellor. The director of this unit is directly responsible to the Vice-Chancellor for the day – to – day administration of the unit.

The Unit serves as a quality control unit of the University, guiding each unit on operating the academic brief of the University. It is the duty of the director of Academic Planning and Control to seek, whenever necessary, clarifications from the NUC, on academic matters at the implementation level and feed such clarifications to the Vice – Chancellor and appropriate sections of the University that sought such clarifications, in the first place. These duties demand that he/she plays an advisory role to the appropriate bodies whenever required such as during meeting of Senate, Academic Planning Committee, University Administration Management, University Board of research, etc.

Another important duty of the Director of Academic Planning and Control Unit (NUC 2001:51) is that of obtaining up-to-date, relevant and accurate data for processing and or for generating relevant information to guide University management for accurate and timely decision – making on University matters. Such

data include staff and students records, financial records, research output, etc. He/she should therefore be actively involved in the Management Information System of the University and also ensure the supply of usable data by the various University Units when needed.

Planning is geared towards accomplishment of desired objectives. It is a thoughtful process. All over the world and particularly in developing countries like Nigeria, Nwankwo (1980:221) observes that there appears to be gaps between educational plans and their implementations.

This seems true in Universities as in other types of educational institutions. Laudable policies are drawn for the provision of adequate human and material resources for the training of the required manpower for social, economic and political development.

According to Okunnamiri (1984:1) the persistent belief that formal education holds the key to national development and economic growth has since provided the conceptual frame and empirical justifications within which the policies and plans of the developed countries of the world in general and developing countries in particular have been defined and elaborated.

Nwankwo (1981:3) posits that educational plans are explicity and implicity seen as adjuncts of the overall national development plans. In order to ensure that this noble aspiration of using education to effectively fulfill its economic and social roles of producing competent citizens and trained manpower for the manifold needs of developing society, it becomes necessary to devote a large proportion of the nation's scarce resources, even at the expense of other services, as well as adopt very successful and effective resourcing strategies in the planning and management of the institutions for the attainment of the institutional goals in particular those of the country in general.

Little wonder Ashby (1997:17) declares that investment in man is a moral obligation, which the state owes its citizens. Contemporaneous to this was the era of the "Human capital" economists, Blaug (1962); Harbison and Meyers (1964) who argue convincingly the high correlation between expenditure in education, educational standards, school enrolment ratios and the Gross National Product (GNP) per capital or level of economic growth as observed in the industrialised societies.

Consequent upon this viewpoint, there was a phenomenal increase in the number of universities by the Government. While the 1979 Nigerian constitution

placed education on the concurrent legislative list which empowered not only the Federal Government but also the state governments and private individuals and groups to establish and run universities. Today, 75 universities there are in the country of which 25 are federal, 25 states owned and 25 privately run universities.

Once an academic policy has been formulated, it has to be implemented unless there is a reversal of the policy so formulated. The mechanisms for implementation of policies within the university community are clearly laid down. Mohammed (1997) identifies certain constraints, which may constitute serious impediment to the academic policy implementation. These include" extraneous influences, lack of adequate financial resources, lack of understanding of issues, lack of commitment, sabotage and apathy" Mohammed (1997) however, proffers a strategy for successful implementation of academic programmes. He opines that no university can succeed without adequate database, without excellent equipment, sound financial resources, dedicated and talented staff. He added that the vice – chancellor is expected to give academic leadership and ensure supporting services are optimal. He concludes that well administered universities are efficient institutions where scarce funds are spent with maximum effect in a manner that embraces thought and academic excellence. It is thus the responsibility of the vice-chancellor to inspire leadership in order to dignify the institution and stimulate faculty staff into a drive towards productivity. In order to achieve these objectives, free consultations with professors and others should be encouraged in all matters relating to academic development such as teaching responsibilities, research activities and consultancy services.

Neville (1997) suggests that for effective academic planning implementation, the traditional dichotomy between the senate and the council be closed by the establishment of combined academic planning and resources body. He opines that possible composition for such a body be the Deans of all faculties, lay members of council particularly concerned with finance and several other lay members of the council and the vice – chancellor as chairman of the body. In such a body, Neville (1997) concludes, the Deans will work for the good of the university rather than for their own faculty.

The problem of sponsored violence and cultist activities by university administrators and academia with university funds meant for academic and human development is observed to be assuming a more serious dimension. Oni (2006) notes that escalation of student violence and secret cult activities are part of the major

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problems facing the educational institutions in Nigeria. Oni adds that the preponderance of student violence and secret cult have not only become an anathema but a negation of the ideals for which the institutions stand. With time these institutions may be unable to perform their roles and responsibilities in national development because lives and properties are no longer safe throughout the length and breadth of the country due to the activities of these groups. In the process of their activities, facilities like furniture, buildings, recreational facilities, instructional materials, information services, project vehicles and so on, worth millions suffer because of lack of maintenance culture.

When the issue of Nigeria educational system today is raised, the first sets of thoughts that comes to mind are: decline in standard, deterioration of facilities, examination malpractices, mass promotion syndrome and the like before any other thing else. This calls for an in-depth study and analysis aimed at informing every stakeholder in the education system on how their actions and inactions have individually and collectively contributed to the collapsing state of education in Nigeria. In any case, knowledge and skill acquisition which education is all about cannot be over emphasised. According to the World Bank (1999: 25), "successful development entails more than investing in physical capital or closing the gap in capital. It also entails acquiring and using knowledge as well as closing the gaps in knowledge". Thus, to successfully confront the challenges of development, a developing country must undertake three major tasks:

- Acquire and adapt global knowledge and create knowledge locally.
- Invest in human capital to increase the ability to absorb and use knowledge; and
- Invest in technologies to facilitate both acquisition and the absorption of knowledge.

Similarly, Fafunwa (1979:26) defines education as "the aggregate of all the processes by which a child or adult develops the abilities, attitudes and other forms of behaviour which are of positive value to the society in which he/she lives, that is to say, it is a process of disseminating knowledge either to ensure social control or to guarantee rational direction of the society or both." Going by the explanation as to what education is, in relation to the state of education and its process in the country today as well as the attitude of its providers-Government at all levels and private

investors; one with interest will be compelled to ask such questions as what has actually gone wrong considering the enormity of its effect on the output from the system in the area of productivity and the degree of acceptance in the labour market and educational institutions, especially outside the country. Response however, will be its militating factors stemming from the incidence of examination malpractice poor facilities, indiscriminate mass promotion syndrome in schools. The causes of these could be traced to:

(i)   Governments insensitivity to education needs

(ii)   Government and private institutions' open encouragement of low productivity and

(iii)   The lack of the spirit of hard-work among a growing number of students.

However, government has always hidden under the following clause, which says: "Government shall continue to respect this freedom as long as these areas are in consonance with national goals". The question is: What constitutes "consonance with national goals"?

But what is institutional autonomy? Anya (1982) defines it as "the ability conferred on institutional arrangements of the state on each university to manage its affairs and consists usually of the corporate freedom of an institution to exercise its prerogatives in the areas of appointment of its staff and of its governining authorities; pursuit of institutional goals as defined for itself under the rules of the laws of the land; insulation of the institution in the management of its routine affairs from political, administrative, religious and other authorities. Indeed, university autonomy implies that each university must be governed according to the law that establishes it. Every university has its law, edict or even decree which spells out the functions of the various organs, such as Council, Senate, Congregation, Faculty, Department, Institute, etc. But successive governments have often impinged on this autonomy, usually hiding under the cover of national interest. Ajayi (1989) quotes Professor Oluwasanmi, a former Vice Chancellor of a Nigerian university, as asserting that "actual interference in university affairs started in 1975. There was no question at all of any, up to 1975, usurping the powers of council to dismiss staff... This problem which universities find themselves with started in 1975".

One of Nigeria's scholars also captured the picture of Nigerian universities in this way: ...universities suffer from arbitrary governance ... rather than being a place

where justice and truth are to be nurtured, the universities triumphed on mediocrity and untruths. Promotion was earned through sychophancy and the admission procedure became systematically bastardised as wives, children, and cronies of Vice Chancellors had their own admission quota without reference to the established procedure. University governance became unpredictable and university finances in shambles (Olorode, 2001). In addition, Arikewuyo (2004:128) recounts how past and present governments have encroached on university autonomy as follows: ...Staff and student unions were banned and unbanned at various times. The ASUU and NANS were the worst affected. Many Vice Chancellors have been removed for not complying with directives from the government. A Major General was even appointed as the sole administrator in a first generation university. Many academics have been dismissed, retired and unjustly jailed for teaching what they were not employed to teach. Forty-nine academic staff of the University of Ilorin were dismissed for taking part in a nation wide strike called by ASUU 2001. They were only recalled after a court order in 2009.

The third contentious issue between the government and ASUU is that of conditions of service of academics. This covers such areas as salary and allowances, retirement and pension, appointment, discipline and promotion of staff, etc. Poor conditions of service of staff are often reflected in such ASUU slogans such as "My boss is a comedian, the wages he pays are a joke; "My take-home pay cannot take me home". It has been asserted that what academics are paid in Nigeria represent 0.0005 of the pay of their colleagues in Botswana (Onyeonoru, 1996) and even in Ghana (Asobie, 1996). As a matter of fact the Federal Ministry of Education (2003) reports that public universities in Nigeria remained closed for an accumulated period of a about 33 months due to progressive reformulation of collective bargaining issues by university staff unions. Of course, poor pay has led to the brain drain syndrome in the university system. According to the Federal Ministry of Education (2003) there was a total of 18, 328 academic staff to look after 433,871 students and by NUC staffing norms, a total of 33,951 should be in the system. Therefore, the academic staff shortfall was 15,718 (46%) in the Nigerian Universities in 2000.

Often, governments in Nigeria resorted to certain hardline postures in order to counter ASUU's strike actions. These include banning and unbanning of the union, seizure of salaries under the guise of no work no pay; ejection from government quarters, detention, etc. Other staff unions within the university system have often

focused more on welfare and salary of members, than on the issues of funding and autonomy. Till date, only ASUU is perhaps the only union that has signed comprehensive agreements with government on the vexed issues of funding, autonomy and conditions of services. Onyeonoru and Bankole (2001) observe that much of the conflicts involving the government and non-academic staff unions emanate from the collective agreements reached between the government and ASUU, which the unions often regard as exclusionary. These have led to the popular parity conflicts in the universities that sometimes involve physical assaults between staff unions and university administration.

At the institutional level, the relationship between university authorities and staff unions, especially the academic body, has not been rosy. Vice Chancellors in most Nigerian universities have often been in collision with unions on many issues, which range from allocation of funds to high handedness on the part of the administration. Funding of various university projects, award of contract, payment of outstanding allowances and salaries, purchase of facilities, library and laboratory materials, etc. have sometimes caused disharmony. Even when government allocates fund to the universities, cases have arisen when university authorities allocate money to things that have no bearing on teaching and learning. Olorode (2001) insists that the inability of most Vice Chancellors to effectively manage the resources available to their universities is due to the fact they have acquired almost unlimited power to manipulate university resources according to their whims and caprices. This high rate of corruption in the university system, in his opinion, arises from the absence of democratic control of university administration.

Also, arbitrariness and high handedness on the part of university authorities and Vice Chancellors have often caused a lot of conflicts. For instance, at the University of Abuja, the Vice Chancellor, Professor Isa Muhammed unilaterally sacked 35 lecturers, dissolved the senate, created programmes and altered the academic structure of the university. He ran the university like chiefdom and with unbelievable brutality (Egbokhare, 2000). In addition, Isa Mohammed was intolerant to the existence of alternative views and trade unions. The man would ultimately declare that he was the "Law" (Mustapha, 1995). He was said to have displayed extreme autocratic tendencies contrary to the expectations of a man of his social and academic status. In 1999, crisis erupted at the University of Ibadan following the action of the administration geared at increasing the fees to be paid by students. The

ensuing crisis led to almost a year long conflict leading to the loss of an academic session, the suspension of some students from the university and the assassination of the university's acting Chief Security Officer who was shot and killed by assailants (CDHR, 2000).

In 1996, at the Ogun State University (now Olabisi Onabanjo University), Ago-Iwoye, over 100 academic staff were unilaterally sacked by the Vice Chancellor for their refusal to "sign back" during a nationwide strike called by the national body of ASUU. Thus, due to the fact that some Vice Chancellors became much too sensitive to criticism, (Belo 1998), and did not necessarily see themselves as accountable to anyone in the university, they effectively transformed into feudal lords within an environment designed to promote tolerance and freedom. This is a graphic description of what someone has called the winner-takes-all syndrome. All these acts of arbitrariness and dictatorship have put ASUU on collision with the administration of many universities. The blatant refusal of university administration to allow for participatory decision-making has also caused some problems. The contention has always been that all segments of the university, namely academic and non-academic staff; students and the public at large must be involved in the administration of the system. It is in this regard that Ejiogu (1987) argues that such involvement transcends the hand, but more importantly, it involves the mind, the heart and head.

Another aspect of research findings related to this work that has generated mixed findings is the relationship between student achievement and provision of school resources or resources including fund. This relationship has been explored by researchers. Schools resources refer to classrooms, laboratories and workshops, furniture, amenities such as electricity and water, textbooks and instructional materials that are provided with fund. These are commonly believed to contribute to the smooth operation of any school and to higher educational attainment, and enhance effective teaching and learning in schools.

Since the publication of the Coleman Report (1966), the role of school funding as a predictor of student achievement has been very controversial. Though the methodological shortcomings of the Coleman Report have been revealed, opponents of increased funding for education raise a new hurdle. Their claim, justified in technical economic terms through "education production function (EPF)" analyses, asserted that there is no statistically significant correlation between increased funding for education and demonstrable improvements in student performance. The

implication of such finding is that money or the facilities it can buy is not related to student academic success.

EPFs are an analogy made by economists between the learning process and the production process that takes place in a firm: Schools are then seen as the place where school resources (teachers, books, buildings, equipment etc, and the students themselves) interact to produce an output, which is the student outcomes, normally expressed in terms of test scores or future wages. Economists estimate EPFs using data available on these resources (inputs) and outcomes (outputs) (Nascimcnto, 2008).

The proponents of EPF include Hanushck (1986, 1987), Harbison & Hanushck (1992), Huinishek & Luquc (2003) and Hanushck ct al (1996). They used the production function analyses to defend the proposition that money or the facilities money can buy do not matter. Their contention is that "key resources are not consistently or systematically related to improved student performance, and that increase in school funding could actually be harmful to students. Hanushek undertook 187 regression analyses based on 38 primary studies of the relationship between teacher/student ratios, teacher education, teacher experience, teacher salary, facilities and other such inputs, with outputs mostly in terms of standardised testing scores, but which also include some instances of dropout rates, college continuation, student attitudes or performance after school.

2.1.2 Material Resource Control and Academic Achievement

Materials resources have been defined by various authors. For example, Obanya (1989) viewed them as didactic materials resource which are supposed to make learning and teaching possible. According to Abdullahi (1982), instructional materials are materials or tools locally made or imported that could made tremendous enhancement of lesson impact if intelligently used. Ikerionwu (Isola, 2010) referred to them as objects or devices, which help the teacher to make a lesson much clearer to the learner. Instructional materials are also described as concrete or physical objects which provide sound, visual or both to the sense organs during teaching (Agina-obu, 2005).

Instructional materials are in various classes, such as audio or aural, visual or audiovisual. Thus, audio instructional materials refer to those devices that make use of the sense of hearing only, like radio, audio tape recording, and television. Visual instructional materials on the other hand, are those devices that appeal to the sense of

sight only such as the chalkboard, chart, slide, and filmstrip. An audio-visual instructional material however, is a combination of devices which appeal to the sense of both hearing and seeing such as television, motion picture and the computer. Among the instructional materials the classroom teacher uses, the visuals out-numbered the combination of the audio and audio-visual.

Mill (2001) states that skill acquisition involves respective performance of an operation through manual dexterity. This implies that skill activities are accomplished through interaction of a performer with sound material objects. Students can only interact effectively with learning resource materials if the teachers make effective use of the resources during teaching.

Cave (2001) maintains that when resources are well selected and skillfully used, they multiply and widen the channel of communication between the teacher and the learner.

Efficiency in the use of resources in teaching, on the other hand, discourages students' practices (Charles, 2001). Non-use of resources materials when teaching has been found to be one of the constraints to the implementation of the provisions of the national policy on education (Ajila and Olutola, 2000). Whereas, Ayara (2002) posits that frequency of use of laboratory resources showed a high positive correlation with achievement.

Chiauacci (2005) defines educational resources as the available facilities that can be used to achieve educational goals and objectives. They are physical, human, material, financial and symbolic resources.

Burns (1996) emphasises that availability and effective utilisation and adequacy of relevant education resources items contribute to academic achievement. Also, the unattractive school buildings, crowded classrooms, non-availability of playing ground and surroundings that have no aesthetic beauty can contribute to poor academic performance.

Carpenter (2003) discovers that students who had used two or more books were almost three times better than those who had no textbooks in school. He found that there was a relationship between resource utilisation and schools' academic performance in the junior secondary school certificate examinations, in the three pre-vocational subjects. It is therefore the researcher's opinion that the quality of teachers will determine to a very large extent the level of academic achievement of the students.

Individuals have perceived and acknowledged the purpose and function of resource in effective teaching and learning. Hallack (1990) emphasized that the availability, relevance and adequacy of educational resource items contribute to academic achievement and that unattractive school buildings, crowded classrooms, non-availability of playing ground and surroundings that have no aesthetic beauty can contribute to poor academic performance. Fuller (1985) discovered that students who had used two or more books were almost three times better than those who had no textbooks in school.

Anderson (1999) discovered that teachers who regularly monitor and supervise their students' learning by checking students' work and helping individual student to overcome errors and learning difficulties are likely to have student who exhibit higher level of achievement. Bajah (1979), Oni (1995) and Adesina (1990) discovered that human resources played the important role in the teaching-learning situation than any other factor of production and that the quality of education hinges upon the qualities of teachers available. Edward (1991), found that as school's condition improved from one category, for example, from poor to fair students' standardized achievement scores rose an average of 5.45 percentage points.

The Saginaw Schools Project in Canada is another study that noted the relationship between students' achievement and building facilities. Guided by the belief that schools can influence and control variables that contribute to school learning, the Saginaw Public Schools launched a "grassroots" project involving thirty-one schools. A school improvement survey was administered to staff to identity and then solve problems Goals listed in each school building plan were attained at a 70 to 100 percent levels. Goals related to students' achievement in reading and mathematics was also encouraging. During the five-year project, students' achievement in both Maths and reading rose in the highest achievement category and dropped in the lowest achievement category (Claus and Girrbach (1985).

Lorton and Walley (1979) posited that learning experiences are richest when the environment (physical resources) around them meet their needs through its adequacy and effective utilization. Walberg and Thomas (1972) in their own contribution reported that children learn best when they can actively explore an environment rich in adequate materials. At the seventeenth Lagos State Congress of All Nigerian Conference of Principals of secondary Schools (ANCOPSS) held in December, 2002 ad hoc committee was set up to identify the causes of poor

performance in the WASSCE. The committee was also asked to suggest ways of improving the quality of education in order to enhance better performance in both internal and external examinations in the state and obtained information on students' population as well as infrastructural facilities. They identified possible factors militating against the enhancement of quality education and better performance of students in both internal and external examinations. Such factors include criteria for transition from primary to secondary schools, unplanned school plant, inadequate provision and maintenance of infrastructure, rapid student population growth, teachers' qualification and experience, teaching-learning process, student-teachers relationship, student-teacher ratio, school authority- teacher relationship, student progression, among others.

During the first Lagos State Education Summit held in July 2004, the Chairman of Post - Primary Teaching Service Commission explained that 90% of the schools have no laboratories and the available ones were ill equipped. Nearly all the workshops were without the required equipment. Many buildings in the schools had become dilapidated. He also observed that students did not have necessary textbooks.

Hence, the interplay of nature and nurture on quality education and student academic performance is an important issue that cannot be overlooked by the stakeholders in education industry. Since the aforementioned research by the ANCOPPS committee on poor performance in WASSCE results has linked the inadequate provision of resources to be a major contributor to the poor quality of education in secondary schools, many studies have been conducted to determine the effect of instructional resources as it enhances quality education and improves students' academic performance.

Nkuuhe (1995) highlighted some of the bad influence as, teachers' abdication of teaching responsibility to textbooks at the expense of original teaching method; textbooks does not give room for flexibility, instead there are mechanical division of the curriculum and no provision made for individual differences among students.

There have been several studies on instructional materials and academic achievement. For instance, Momoh (Isola, 2010), conducted a research on the effects of instructional resources on students' performance in West Africa School Certificate Examinations (WASCE) in Kwara State. He correlated material resources with academic achievements of students in ten subjects. Data were collected from the subject teachers in relation to the resources employed in the teaching. The

achievements of students in WASCE for the past five years were related to the resources available for teaching each of the subjects. He concluded that material resources have a significant effect on student's achievement in each of the subjects.

In the same manner, Moronfola (1982) carried out a research in Ilorin Local Government Area of Kwara State. She used questionnaires to collect data on the material resources available for the teaching of some selected subjects in ten secondary schools and related these to students' achievements in each of the selected subjects and to the amount of resources available for the teaching of the subjects. Finding showed a significant effect of material resources on the students' academic performance in these subjects.

In the same vein, Popoola (1990) investigated the effect of instructional resources on the academic achievements of students in Ogun State. Five secondary schools in Abeokuta were used for this study. Questionnaires were designed to elicit responses on instructional materials that were available for the teaching and learning of each of the three school subjects he examined. He collected WASC examination results for five years and compared achievements of students in schools with adequate material resources and achievements of students in schools with inadequate material resources. He found a significant difference in the achievements of the two sets of students. The schools with adequate instructional materials performed better than those with inadequate instructional materials.

Balogun (2002) identified two main constraints militating against the successful improvisation of Science equipment. These are the technical and the human factors respectively. While the technical factors relate to the question of degree of accuracy and precision that is possible with the improvised equipment, the human factor relates to the teachers' skill in developing the resources while providing the appropriate learning experience to the learners.

Several people have written on the importance of instructional resources to teaching, Oluyori (1986) while stressing the importance of instructional technology commented that if the recently introduced system (6-3-3-4) in accordance with the National Policy on Education is to be a success then instructional technology has a role to ply. Balo (1971) commented that "Audio-visual materials, as integral part of teaching-learning situations help to bring about permanent and meaningful experience. He said that, they provide first-hand experience where possible or of vicarious one where only that is feasible.

In enumerating the factors that could be responsible for varying intra-and inter-school/academic achievement. Coombs (1970), listed four important factors including the scarcity of instructional resources which he said constrained educational systems from responding more fully to new demands. He claimed that, in order to do their part in meeting the crisis in education, educational systems will need real resources that money can buy, they will need a fuller share of the nations' manpower, not merely to carry on the present work of education, but to raise its quality, efficiency and productivity. They will need buildings, equipments and more learning materials.

Fafunwa (1979) in his paper "The purpose of teacher education" commented on the importance of teachers thus:

> *"The demand for more and better schools, the need to relate curriculum to the needs of the child and the environment, the crying needs of the child and his other instructional materials, the desirability of training in vocational and technical skills, and indeed the overall problem of preparing the future citizens of Africa who will be fully oriented to their environment cannot be fully accomplished without the aid of competent teachers" (page 36 - 37).*

Fagbamiye (1977) noted that schools with stable, experienced and qualified teachers usually have better school facilities in terms of school buildings, books and equipments than those schools which have difficulty in attracting experienced and qualified staff. Numerous investigations have also been carried out to find the effects of instructional resources on students' academic achievement. Eminent scholars have also contributed immensely to report the effect of one variable on the other. Consequently, there have been many reports from these studies which had served as useful guides to the present one.

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Akolo (1978) conducted a survey of audio-visual materials for eight Teacher Training Colleges in Kwara State and for twelve Teachers' Colleges in Plateau State of Nigeria. His study considered such elements as equipment and materials owned by each of the selected teachers colleges, utilization of equipments and materials owned, and the number of teachers that had some measure of audio-visual related training. The study revealed that there was under-utilization of instructional equipments in some areas and non-utilization in other areas where the research was conducted.

Newton (1997) professed that the magnitude of instruction are more scientific base; make instruction more powerful; make learning more immediate and finally make access to education more equal Adeogun (2001) discovered a very strong positive significant relationship between instructional resources and academic performance. According to him schools endowed with more resources performed better than schools that are less endowed. This corroborated the study of Babayomi (1999) that private schools because of the availability and adequacy of teaching and learning resources performed better than public schools. Adeogun (2001) discovered a low level of instructional resources available in public schools and stated that our public schools are starved of both teaching and learning resources. He expresses that

effective teaching cannot take place within the classroom if basic instructional resources are not present.

Loxley (1984) revealed that inadequate supply of textbooks in schools is having a toll on teaching and learning activities in many of the countries in the world. According to him, the World Bank data recorded the number of student to a textbook as ratio 20:1. Sodimu (1998) in his findings reported that based on the high cost of textbooks, many students have been unable to buy books that will help to promote the quality of education they receive in Lagos state public secondary schools. He even stressed that parents believed so much in government funding the education in public schools to the extent that they become non-chalant towards equipping their wards with textbooks. Textbooks as indicated by Oni (1995) are indispensable to the quality education and students' academic performance in all the schools in the world.

In the same vein, Hakkinen (2004) studies the effect of changes in school funding on matriculation examination results. He used a large sample of outgoing senior secondary school students to determine whether a reduction in school spending had a negative impact on examination results. The measure of resources was teaching expenditure which comprised teachers' salaries, teaching materials, teacher training and other teacher-related costs. The analyses show no effects of teaching expenditure on student performance. Even when the dependent variable was altered to various sub-scores of the examination, none of the specifications produced significant effects of resources on performance. Some possible explanations may be given for this. First, it may be that the schools saved on one aspect and focused on the subjects the students' registered for in the examination. Second, it may be that the teachers .exerted extra effort in the short term or that the test standards were lowered. No matter the explanation given, the study did not show any empirical support to the common belief that cutting resources affect student achievement negatively.

Perez, Paristr, Aarid, Spermi, Ezzra, Socias and Gubbins (2007) report similar findings from their study of successful and unsuccessful public schools in the state of California. They set out to explore the extent to which student outcomes could be attributed to the amount or type of resources available in the schools. Data from the study reveal no relationship between school resources and academic success since available measures of resources did not appear to be statistically related to the academic performance of students in both low performing and high performing schools. The authors concluded that though resources may matter in education, they

only matter to the extent that they arc combined with other attributes of student background characteristics.

Contrary to the views of Hanushek and others who found no relationship between school facilities and academic achievement, some researchers (Hedges et al, 1994a; Hedges et al, 1994b; Hedges and Greenwald, 1996) have reported significant association between basic resource inputs and student success. Their studies attempted to demonstrate that Hanushck's compilation and interpretation of the available studies were inappropriate. The most extensive rebuttal of Hanushek's methodology was undertaken by Greenwald et al (I994a). They carried out a meta-analysis of the 38 specific studies that Hanushck had identified in his work, and concluded that: '...a broad range of school inputs are positively related to student outcomes, and... the magnitude of the effects are sufficiently large to be important since moderate increases in spending are significantly related to increases in achievement'. Their results suggest that the impact of resources is big enough to be educationally important. More recently, Krueger (2003) reinforces the argument put forward by Hedges and Greenwald (1996) that Hanushek's sample of estimates is biased towards his conclusion.

Grissmer (Rcbell & Wardenski, 2004) extensively studied the NAEP scores, and demonstrated that Manushck's conclusions, by over-relying on aggregate scores, arc seriously misleading. Grissmer found that during the 1970s, when major increases in funding focused on the needs of poor and minority students, there were significant increases in NAEP scores; funding proportionately decreased in later years, so did the achievement gains. Specifically, during the 1970s and 1980s, major increases in funding consistently yielded higher reading and mathematics scores, especially for African American and Latino students, making gains in narrowing the black white achievement gap. While the average white student's NAEP reading scores increased four percentile points, the average African American student's gains were nearly six limes that level, with gains of 23 percentile points; Latino students experienced gains of 7.5 percentile points.

One remarkable evidence from studies on relationship between school facilities and student outcomes is that majority of the studies conducted in developed countries tend to suggest that variations in achievement is more closely tied to family background than to school facilities, while those that emanate from developing countries suggest contexts where student outcomes tend to be more sensitive to the

availability of school resources (Gamoran & Long, 2006). For instance, some studies conducted in the United Kingdom (Vignoles, Levacic, Machin, Reynold and Walker, 2000; Levacic and Vignoles, 2002; Steele et al, 2007) point to small resource effects. Other studies conducted in developed countries (Bourke and Smith, 1995; Heyneman, 1975) found that the effects of these school factors on the success of students arc minimal. This view is supported by Fuller (1987) in his assertion that the independent influence of school factors appears to be much greater in the third world than within industrialised countries.

Unlike the studies reported above, studies conducted in developing countries yielded contradictory results. Subedi (2003) studied high schools in Nepal and found a significant relationship between student achievement and the availability and utilisation of resources. The study also shows that class size and resources must be positively aligned to impact on student achievement. This finding is important in the sense that the impact of resources within a classroom diminishes as the class size increases. Other studies conducted in Nigeria (Okebukola, 1985; Okunola, 1985; Agusiobo, 1994) indicate that the availability of resources particularly fund, is an important variable in student learning.

A common way to examine utilisation of educational resources (Campbell, 2009) is to analyse school spending i.e. expenditure by an institution on a student per year. For budgeting and planning purposes, institution spending is often divided into recurrent and capital categories. Recurrent expenditure is spending on school inputs that last for one year or less and it is sub- divided into spending on personnel and non-personnel inputs. Capital expenditure refers to spending on school inputs such as buildings and equipment that last for more than one year. School expenditures are important to examine because they generally constitute the bulk of all resources devoted to schooling and they are tractable instruments of education policy. School expenditures are often compared on per -student basis. It should be pointed out that school expenditures do not capture educational spending by households (e.g. school uniform, stationeries) outside the school. They also do not include the indirect cost of schooling (such as forgone productive activities outside the school).
In order to achieve optimal utilisation of resources (which no matter how vast the educational resources might be, will still be referred to as being scarce i.e. limited in supply), the challenge that is facing the educational manager of a university is to find ways of using the limited educational resources efficiently. Campbell et. al (2009)

assert that in education, the central figure is the student, and the information on unit cost will provide insight into the amount of funds to be provided by the proprietor or other financiers of the university. Apart from its use in resource allocation, unit costs are also useful in educational planning, which is a measure that can ensure optimal utilisation of educational resources. Unit costs are useful in efficiency measures and resource mobilisation. The measurement of unit cost in education is a complex exercise due to the difficulty in identifying what costs are to be measured at each level. There is also the problem of identifying the components of the university activity to be included in the costing process i.e. academic activity, research and public services. For these basic reasons, the educational manager has to be very careful when putting together his/her sources of information that will assist him/her in determining the unit cost per student. When this care is taken, his/her data will be reliable and he/she can end up utilising the available educational resources mobilised appropriately, adequately and efficiently.

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2.1.3   Financial Resource Control and Academic achievement

An important input that comes along with all other inputs is finance which is categorised as capital and recurrent expenditures. Construction of classroom buildings constitute the major capital expenditure of education while salaries, particularly, of teachers represent the most important aspect of recurrent education expenditure.

Resource mobilisation by the institutions of higher learning is engaged in substantial income-generating activities including consultancy, production, maintenance and other services. This revenue is invested in a revolving fund.

As articulated in the National Higher Education Policy, an effective financing plan for higher education has to accommodate the changing role of government in financing and managing education. Emphasis shall be directed at cost – sharing and involvement of private organisations, individuals, non-governmental organisations and communities that will be encouraged to take an active role in establishing and maintaining institutions of higher learning. Students will also have to contribute to their education (Okunamiri, 2000).

Beeby (1966) reported that good education cost more than bad. Inadequacy of funds handicaps principals in their administrative and academic functions. Adeogun (2001) asserted that education as a social service requires adequate funding to procure, maintain and keep the school services going.

Studies on resource allocation to Colleges of Education, sources and strategy for generation in some countries of the world abound in the literature, (Green, 1988; Gronn,, 1996; Harber, 1999; Hazans and Trapeznikova, 2006).

The new approach to financing higher education aims at the following:

- Rationalising the level of government contribution to higher education.
- Rationalising the level of government awards at institutions of higher education and introducing some competitiveness in the awards.
- Introducing a legally-binding students' loan scheme.
- Arresting the decline in the quality of and access to higher education due to underfunding by requiring the beneficiaries to contribute towards their higher education and by shifting public resources from students' welfare to provision of education.

The government will also continue to generate additional external aid through grants import support, and debt relief. Debt relief under enhanced HIPC initiative is expected to contribute 0.6 per cent of GDP in the next fiscal year (Department of Education, 1996).

The Education and Training Sector Development Programme recognises fact that it is not easy for government and parents alone to shoulder the burden of education financing. Efforts have to be made to identify other stakeholders and

beneficiaries, especially the business community and graduates who have enjoyed spill over. An education levy was introduced, independent of government budget and enlisting the participation of education umbrella organisations. Current sources of funds envisaged include (Dimmock and O'Donoghue, 1997).

- Raising rates on present fees.

- Levying on goods and services, which are capable of producing good results when big numbers of nominal rates are used.

- Levy contribution by beneficiaries of education like the industrialists, investors and consumers of educational services.

It is envisaged that the fund would serve the resource mobilisation function and the grant and resource allocation function.

Human and material resources are very fundamental to academic programme implementation particularly at the University level. A noticeable characteristic of resources in education is that they are not always enough to provide all the educational services. Consequently, educational wants are all competing for the limited resources. Hence we talk not of the allocation but utilisation of resources in education.

Previous studies (Oni, 1992; and Adedeji, 1998) are in agreement that the level of resources available and how well they are utilised can significantly affect the eventual success and that resource utilisation was found to have a high positive correlation to academic performance. According to him, the relationship between utilisation of resources and academic performance was higher than that between recommended textbooks and academic performance and only next to that between material equipment and schools academic performance. This according to him tended to show that material equipment could have any relationship with the schools academic performance, only when such materials were put to judicious use in relation to their costs.

The meaning of cost in university education and in a monetised economy usually appear in the form of expenditure of money. Costs are payments made to acquire goods and services. The real costs of university education consists however of the benefits that might have been realised from resources expended-labour, capital and land that are employed the institutions – but were sacrificed. These alternative might have been in form of goods e.g. foods, petrol etc.

These sacrificed opportunities represent the real costs or the opportunity cost. So whenever, it is suggested that more resources be devoted to higher education, the assumption is that the additional resources so used will produce greater returns than the same resources devoted to other purposes. Also, when it is suggested that the resource employed in higher education be cut back, the implication is that the same resources would produces a greater return if applied to an alternative use. Okebukola (2002) concludes that costs studied are usually confined to the educational function for which a tenable measuring unit is available. In a study of institutional costs, it would have been desirable to include the costs of organised research and public service to educational costs, because both research and public services are integral and important functions of universities. Unfortunately, these two activities do not lend themselves to measurement in discrete units. It is generally difficult, he concluded, except through the Board's general judgment of experts, to measure the output of an institutions organised research or public services programmes.

Sambo (2003) finds that several factors determine the unit cost per student in Nigeria universities. The major ones bring the student enrolment, type of university (conventional or specialised), programme spread, location, age institutional management and efficiency and the funding parameters in use at any one time.

The minimum recommendation of the unit cost by the World Bank for a Third – World country is $1000 = that is about N13, 000. The recommended $1000 does not include what a student spends to maintain himself/hersefl. Obikoya (2002) finds that the unit cost in Nigeria's universities is still a far cry from the ideal.

In the face of dwindling and lingering economic misfortunes of the country, it is very pertinent that universities look into ways and means of reducing costs. Babalola (1997) notes that cost reduction in university education is necessary if profitability is to increase, and if further expansion and improvement is to take place. Studies have also shown that a number of potential cost-savings reside in economies of scale (Bottomly, 1992; Walkins and Astilla, 1980).

Other suggestions of reducing expenses of university include the identification of priority spending of the universities. Also, suggestions are made on shifting resources from less to more important university functions.

In many countries, education is viewed as an investment in a nation's development, as it is expected that the educational system will produce the quality and quantity of human resources required for the economy's growth using the right mix of

inputs. In Nigeria, the educational sector has supposedly been consuming quite a large proportion of the annual budgets of the state while expenditure on this sector is largely regarded as an investment. The problem which si currently assailing the Nigerian educational system is the usual gap between the expected and the actual quality of output. In the last two decades, university education in Nigeria has witnessed exponential increase in students' yearly enrolment. This has led to the establishment of more institutions and the employment of more teaching and non-teaching personnel, thus increasing the cost of education. The non-corresponding expansion in facilities, equipment and material resources has resulted in the gradual collapse of university education system.

It is also a well known fact that the inadequacies always observed among many undergraduates and graduates alike is as a result of the inadequacies associated with the issue of funding the tertiary educational system in Nigeria. It is however pertinent for the government of the day to design suitable guidelines for funding education. For instance, UNESCO has recommended that 26% of the total budget of a nation be allocated to education. But Longe Commission of 1991 observed that the percentage of recurrent budgetary allocation to education in Nigeria has never exceeded 10%. Though, the system is expensive to keep afloat, quality however in any form is partly a function of the total fund made available to the system and judiciously utilised for the purpose to which it is meant for. Funds are required and necessary to maintain both the human and material resources of the system in order to achieve desired goals. Also, there is the need for an effective monitoring of the management of fund presently being allocated to the sector, as efforts should be intensified to improve on what is currently being allocated to the system.

Under-funding has been a major problem of University education in many developing countries, including Nigeria. When public funding becomes insufficient to maintain institutional performance, universities seek to supplement their funding with locally generated revenue. This is also true in Nigeria. The principles guiding reforms in the funding of university education in Nigeria therefore take a tripartite approach: increases in government funding, cost sharing among stakeholders and promoting internal efficiency through better allocation and utilisation of funds. The first and second approaches are systemic, while the third is institutional. The quantity of funds released to federal universities has increased more significantly within the last five years than ever before. While there has been debate over the real value of the funds

released, the average actual recurrent grant released per student has increased from 45,323 Naira in the 1999/2000 session to N137,457 Nairas in the 2001/2002 session (Sambo, 2003).

Another major policy initiative on funding was the separation of the costs of academic activities from the regular overhead costs (for goods and services) through the creation of a separate Direct Teaching and Laboratory Cost (DTLC) budget in 2004. This was meant to guarantee the funding of the day-to-day academic activities in federal universities at departmental level. Within the past five years, public funding of university education has also involved the participation of other relevant ministries and parastatals, either directly through the release of funds or indirectly through the provision of physical facilities, including buildings and equipment. The Ministries of Works and Transport, Housing, Water Resources, Health, Science and Technology have all been involved in the funding of university education through the provision of facilities. Major parastatals and organisations involved in funding university education have included the Education Trust Fund, Petroleum Technology Development Fund, Niger Delta Development Commission, Central Bank of Nigeria, National Deposit Insurance Company, among others. This approach greatly complements the direct funding through the Ministry of Education.

The increasing costs of delivery in university education brought about by a combination of enrolment pressures, resistance of institutions to adapt more efficient and productive financial management styles and inability of government to keep pace with cost pressures in the face of other, competing social demands have forced a rethink of the exclusive funding of university by the government. As a result, various cost-sharing measures have been introduced, including user charges, which were previously non-existent. The second rationale for cost sharing in university education is the issue of equity. The private rate of return of university education has been shown to be high and this is made more compelling by the fact that a disproportionate number of the beneficiaries of higher education are from middle to upper income families. Consequently, if individual students gain from university education, it is fair that some form of cost sharing be put in place. There are two basic components to unit costs in university education–tuition fees and student support costs. Tuition has remained free in all federal universities as a government policy, but students are basically responsible for their upkeep and academic support costs. This is subsidised through the institution of scholarship schemes by various levels of government. Such

student support costs are in such areas as hostel accommodation, health, transportation and feeding. A study conducted by NUC has shown that student support costs consist of about 45 per cent of total teaching cost per student across disciplines and universities.

Institutional entrepreneurship and philanthropic donations are other forms of cost sharing that are being actively promoted by government as a matter of policy. They will further increase the quantity of funds that go into the institutions and further subsidise academic costs. The private sector has also been invited to get involved in the provision of hostel accommodation through participation in the University Hostel Development and Management Initiative introduced in 2001. This policy was informed by the success recorded in this regard by the private sector in some state universities that were entirely non-residential at the outset. The objectives of the policy (Okebukola 2003) are to:

- encourage the intensity of private sector participation in hostel provision as a contributory factor to having a conducive environment for learning
- encourage ploughing back of private profits into critical social areas
- channel more university resources towards teaching, learning and research
- ease the problem of acute shortage of hostel accommodation in the university system.

Under this policy, each university provides land on a lease basis and enters into a contractual agreement with the provider on a "build, operate and transfer" (BOT) basis. With regard to the promotion of the internal efficiency of universities, a number of policies and guidelines have been introduced by the NUC to promote and support efficiency in fund allocation and utilisation within each federal university. Such guidelines include the following:

- 60:40 recurrent grant allocation between personnel and overhead costs
- at least 60 per cent of total recurrent grants to be allocated to direct teaching units
- library to account for at least ten per cent of total recurrent expenditure
- research grants to account for at least five per cent of total recurrent expenditure
- central pension fund to account for at least one per cent of total recurrent expenditure.

These policies were put in place to ensure adequate allocation of funds to academic and research activities in each university rather than to routine administrative functions.

The issue of funding has been a source of crisis in the Nigeria University system. Various organisations, parents, labour unions, etc, have at various forum pointed the attention of government to the poor funding of the system. For instance, Ibukun (2004) reports that between 1987 and 1997, average expenditure on education by the federal government, as a percentage of the annual budget was 5.1%. When related to the GDP, Federal government expenditure on education averages 1.1%. In addition, Arikewuyo (2004) reports that since the advent of democracy in 1999, funding of education dropped from 11.12% to 1.81% in 2003. UNESCO (2000) reports that unlike Nigeria which spends an average of 1.1% of its GDP/GNP on education, other countries like Ghana spend 3.6%, Kenya 6.2%, and Zimbabwe 9.5%. The effect of poor funding is evidenced in the brain drain, a phenomeon which has depleted universities in Nigeria seriously. The country has lost most of its experienced academics to even smaller African countries, such as Ghana, Rwanda, Kenya, South-Africa, to mention a few. Even when enrolment continues to increase from 325, 299 in 1999/2000 session (Okogie, 2004) to 433,821 in 2000/2001 session (FME, 2003), the level of funding has been going down.

ASUU, for instance, has gone on strike several times, namely, in 1992, 1993, 1994, 1996, 1999, 2001, and 2003 to press home its demand for increased funding of the system. Perhaps the government fails to understand the fact that: the success of any school depends upon the resources available to it. Money is very important in this respect because by it, all other vital elements in the school can be obtained such as school buildings, purchase of equipment, payment of teachers' salaries and allowances and running expenses (Aghenta, 1984). The issue of university autonomy and academic freedom has also been a vexed matter between governments and ASUU especially. The Federal Republic of Nigeria (2004) had recognised that:

- The internal organisation and administration of each institution (of higher learning) shall be its own responsibility;
- The traditional areas of academic freedom for the institutions are to:
  1. select their students, except where the law prescribes otherwise;
  2. appoint their staff;

3.   teach, select areas of research; and

4.   determine the content of courses.

It is noteworthy however that the unit cost per student in any institution is determined by student enrolment, location of the institution, age of the institution, funding parameters in use at a particular time and finally, the number of accredited programmes (Tsang and Ding, 2005). All these identified determinants, will in one way or the other give the educational manager a good idea of the unit cost per student in the institution. Private universities with low student enrolment, have higher unit cost per student because of their resource needs and requirements despite the fact that the students are fewer. On the other hand, private institutions with higher student enrolment will have lower unit cost. The location of any university (rural or urban) determines the cost of goods, services and ultimately unit cost per student. Goods and services are generally more expensive in rural than in urban areas. Thus universities located in rural areas may have higher unit cost. Living expenses of students in urban areas on the other hand are likely to be lower and the combined effect of these two factors may lead to a stable unit cost (Hartnett, 2000).

The age of an institution can also affect the unit cost per student. This is because as the university gets older, it is more likely to have higher maintenance costs and all things being equal more students enrolled. This in the long run could lower unit cost. The National Universities Commission regulations on staffing of universities will determine the total number of staff for academic departments (staff-student ratio) and the central administration. All these recommendations must be adhered to. This will determine the overhead cost (Hartnett, 2000).

Also, the education manager is expected to carefully place each staff at the appropriate level based on the years of experience of the administrative staff and the number and classification of academic publications in the case of the academic staff. This is very important so that the institution will not mount unnecessary overhead costs while more importantly it mounts the appropriate overhead costs. The accreditation status of the programmes in universities can affect the student unit cost. This is because programmes with full accreditation status attract more financial resources, more enrolment and therefore, less unit cost per student It is noteworthy however that these overhead costs must be reasonably minimised in order to ensure optimum utilisation of educational resources available to the institution.

2.1.4 Human Resource Control and Academic achievement

There are several studies on resource application in the colleges of education in Nigeria, emphasising that the resources which should normally go along with the colleges of education programmes are adequate and the quantity that is available should be well applied (Donald, Lazarus and Lolwana, 1990; Donmoyer and Wagstaffm, 1990).

On human resources, various educators for example, Ukeje (1970) and Fafunwa (1969) have written extensively on the prime importance of teachers to the educational development of any nation be it simple, complex, developed or developing. From the writings of these educators, one can infer that whatever facilities are available, whatever content is taught, whichever environment the school is situated and whatever kind of pupils are given to leach, the important and vital role of the teacher cannot be over-emphasised. Assuming that necessary facilities are adequately provided for, the environment is conclusive to learning, the curriculum satisfies the needs of the students and the students themselves have interest in learning, learning cannot take place without the presence of the teacher.

Teachers represent a large proportion of the input of an educational system. Coombs (1970) observed that "the problem of teacher supply is not one of simple numbers. It is first and foremost a problem of quantity and getting the right quality. Fayemi (1991) also observed that "it is a truism that teachers are the hubs of any educational system" that upon their number, their quality and devotion depend the success of any educational system".

Also, Maduabunmi (2003) reported lack of adequate professional training as a major problem militating against the effective use of local resources for Science teaching. Oyediran (Isola, 2010) then stressed the need for a definite well planned training programme of improvisation for teachers. He suggested regular meaningful workshop on improvisation technique for Science teachers to improve and up-to-date their competence.

Available data suggest that large proportions of Colleges of Education teachers in Africa lack adequate academic qualifications, training and content knowledge.

The level of teachers' knowledge of subjects is crucial and has been shown to be a good predictor of student achievement (Botha and Hite, 2000). In many developing countries, levels of subject knowledge are a problem.

Teacher absenteeism, a persistent problem in many countries, reduces quality of education and results in a waste of resources. In 2003, a World Bank study revealed that in Uganda and Zambia, teachers who were absent the week before the visit of researchers were 26 and 17 per cent respectively (World Bank, 2004). In Ghana, teacher absenteeism, especially in rural schools has been a recurring concern for educational authorities (Odekunle, 2001).

Absenteeism is not peculiar to Ghana, Clayton (1996) observes that teachers absent themselves when they have to travel to obtain their monthly pay, while courts (1995) attributes absenteeism to a situation where conditions compel teachers to take on a second job to supplement insufficient salaries.

In the rural-based schools, the problem has gender dimensions, in that women are actually, under-represented in school headship. The male head teachers express concern about the gender imbalance of teaching staff, attributing this to women's unwillingness to take up teaching posts in deprived areas. This they lament, has wider effects on attitudes to learning. Some girls feel it is not worth studying hard or even going to school because, the female role models they encounter in the villages are either farmers, seamstresses or fish mongers and housewives who give birth to many children (Creswell, 2003).

The prevalence of HIV/AIDS in a growing number of developing countries, especially sub-Saharan Africa, is a major factor influencing teacher quality, sometimes leading to high teaching-staff attrition rates. Deaths largely from HIV/AIDS contribute to teachers' shortage. In Zambia, as an example, it is reported that "the number of colleges of education teachers that died in year 2000 is equivalent to 45 per cent of all teachers that were educated during that year" (Cullingford, 1997).

In year 2000, about 330,000 adults and 20,000 children were infected (Beresford, 2001). As summarised by the El Global Monitoring Report (2002). "In a situation where the shortage of qualified and experienced teachers is a major obstacle to succeed and reach the EFA goals, HIV/AIDS has serious effects on the situation in schools" p. 42.

Akintayo (1980) did a survey of the learning and teaching problems of history in the secondary schools in Ekiti central local government area of Ondo State. She

made use of 100 students and all history teachers in 6 secondary schools. Questionnaires were distributed to them to respond to. 44% of the students agreed that one of the factors affecting poor performance in history is lack of qualified teachers to teach the subject.

The developmental appraisal system (DAS) is based on the premise of life-long learning and the principle that the school is a learning organisation (Naicker & Waddy, 2002:4). According to Steyn (2002b:300), the manual for developmental appraisal regards the aim of developmental appraisal as facilitating the personal and professional development of all educators in order to improve the quality of teaching and learning. In order to achieve this aim the following requirements must be met: a democratic organisational climate, a culture of learning in institutions and a commitment of educators to development. South African Democratic Teacher's Union (SADTU) (2002:1) contends that the developmental appraisal system is meant to address the need for educator development and training as well as assessments of educator quality that can be measured against the investments (inputs) made by the education department. It is crucial that every staff member should be involved in the developmental appraisal process from the onset so that he/she owns the system. Jantjes (1996:50) is of the opinion that educators were opposed to traditional evaluation procedures not because they wanted to be left alone but because they were asking for evaluative procedures that are enabling, allow self-reflection, form an integral part of teaching and, above all, procedures with which they can identify. As a result the developmental appraisal system was introduced after long deliberations between various stakeholders (the Department of Education officials and the educator unions).

Patel (2001:1) regards the developmental appraisal system as a system that allows the classroom practitioners (educators) to identify their own development needs through a democratic and formative process together with the participation of education managers (principals), peers and experts. But not only educators in the classroom are subjected to this system. Naicker and Waddy (2002:60) maintain that office-based educators like directors, district managers, superintendents of education (management), superintendents of education (advisory), principals, deputy principals and heads of department should be also appraised. However, different criteria should be used when appraising these personnel. "These individuals do different tasks; therefore, they should be appraised in terms of their competence at those tasks. The

success of the developmental appraisal system depends on three important things, namely, the involvement of the stakeholders (appraisers and appraisees), their understanding of the process and the availability of resources,

Naicker and Waddy (2002:63-64) regard democracy, transparency and development as the three philosophies that inform the guiding principles of appraisal in the South African context. For example, the developmental appraisal system is designed to ensure that there is democratic participation in the appraisal process. Thus, the establishment of an appraisal panel is intended to achieve this, as the panel includes all stakeholders including the appraisee and it is a collaborative or joint effort. Meanwhile, transparency ensures both democracy and accountability. It also prevents appraisals from being done in secretive and corrupt ways. Also, the appraisal is in essence a developmental process and it is not meant to intimidate and victimise educators. It is intended to enrich strengths, develop potential and overcome weaknesses.

Giwa and Illo (2000) expressed the problems militating against schools inspection as shortage of manpower and quality of the personnel available for the work. According to them, in most Africa countries the roles of inspectors tend to be ineffective due to severe resources constraints. In the findings, they realized the number of inspectors and monitoring officers who are newly employed with no practical experience on the job are being posted to the inspectorate unit of the Ministry of Education. They stated that to inspect and supervise schools effectively requires regular school visits of well experienced officers with adequate pro vision of resources to forestall ineffectiveness in performing their duties. Fagbamiye (2004) posited that government should reduce its responsibilities to monitoring of what transpires in the schools to ensure quality.

In the foregoing perspective, the value of any educational system as an investment lies in its capabilities to continuously serve its clients (students) better and remain relevant. In this regard, educational planners and managers are faced with the challenges of providing adequate and qualitative resources for the system. It is on this basis that this paper examines the relationship between physical, human (teachers); financial (funds); material resources and students' academic performance.

The issues of quality and high productivity are of utmost concern to the Nigerian higher education system. The majority opinion in the country today is that the quality of the institutions of higher learning is low arising from the performance of

the graduates of these institutions. In fact, some have attributed the problems of Nigeria to the low quality of these graduates. This is logical in that a thoroughly educated man is more productive both to himself and society. Sanda (1992:1) corroborates this. According to him, "the chronic ailments of contemporary Nigerian society is derived from the decline in the society's quality of education". There is no doubt that education imparts skills, attitudes and values to people, but the reality today in Nigeria is that, though so many Nigerian youths are attending one higher institution or the other, the question is how qualitative is the education? So many reasons have been given as responsible for the low quality of education in Nigeria. Some trace it to the paucity of financial resources available to the institutions' management, while others attribute it to gross mismanagement, maladministration and goal displacement of these institutions resulting to poor motivation of lecturers and students in their quest to excel professionally and academically.

From a behavioural point of view, leadership and employee motivation are opposite sides of the same organisational coin. They interact to affect the efforts of workers. Management must know how people are motivated and what leadership characteristics and behaviour can lead to higher levels of motivation. Motivation refers to the incentives, inducements and rewards that are given to workers on a regular basis, so as to boost their morale for enhanced productivity. It can also be referred to as anything done to encourage the behaviour of employees towards better performance in achieving organisational goals. Motivation is an internal drive and persistence of behaviour. It is obviously a result of the combination of particular individual characteristics and the situation in which the individual is placed. This observation is buttressed by many motivation theories on how workers can be motivated. There are theories like Maslow's Hierarchy of Needs, Hertzberg Two-factor Motivation Theory, etc. (Oloko; 1983:8).

There is the need for associating increased rewards with increased productivity. Increased rewards could serve as sufficient incentive for higher productivity. Apart from this, adequate sanctions should be visited on low productivity. Failure to do this will lead to the diminishing of the incentive for higher productivity. In other words, factors for low productivity such as indiscipline, lateness, lack of adherence to deadlines, absenteeism, non regular attendance, etc. should be seriously viewed. Those that are guilty of such should be punished. In order to ensure high productivity and quality products, there is the need for considerable

division of labour, rigorous control of the pace of work, close supervision and discipline on the part of all, i.e., the superiors and subordinates alike. (Oloko; 1983:8). There is also the need for improvement in academic staff's working conditions. Working in a conducive atmosphere will enhance higher productivity and give the staff a sense of belonging. This will have a great impact on the quality of services rendered.

2.1.5   Transportation Facilities Control and Academic achievement

The years of turmoil have taken a heavy toll on the infrastructure of education and training system. In predominantly black townships, for example, most schools have been vandalised (Van Wyk & Mothata, 1998:5). Therefore, external evaluators have to assess the conditions of schools and resources in various schools. Thus, particular attention must be paid to schools' state of repair and how well these are organised and used in the interest of the learners (Department of Education, 2001d: 11).

According to the Department of Education (2001d:ll). supervisors must, make judgements and report on the effectiveness of the following: the sufficiency of suitably qualified and experienced educators and support staff; the amount of accommodation and its state of repair and suitability of the school's premises; the sufficiency and suitability of books and equipment for learning: the efficiency with which the transportation resources are used and the methods by which all the schools and the governing body ensure they get value for money. Davidoff and Lazarus (2002:128) are of the opinion that not only do these resources need to be available to the school, they also need to be appropriate to the school in terms of its vision and aims. For example, a school that has committed itself to inclusion of learners with special needs must ensure the building accommodates their particular needs.

Numerous studies have examined the impact of mobility on several aspects of academic achievement: test scores, grades, retention, and high school completion. As with all research studies, there are limitations to what these studies tell us. Most important, because mobile students may have personal and family problems that contribute to their mobility, studies should take into account those prior characteristics in order to determine whether mobility itself is the cause of subsequent achievement and other problems in schools.

Studies that do not control for the background characteristics of students consistently find that mobile students have lower achievement on average than non-mobile or stable students. For example, one national study of third-grade students found that frequent school changes were associated with a host of problems, including nutrition and health problems, below-grade-level reading scores, and retention in grade (U.S. General Accounting Office, 1994).

Yet studies that do account for background differences find that mobility may be more of a symptom than a cause of poor school performance. One study of mobile students in Chicago found that half of the achievement differences between mobile and stable students could be attributed to differences between the students that pre-dated their school changes (Temple & Reynolds, 1997). One well-designed study of elementary students in Baltimore found that although mobility during elementary school had a negative association with test scores, grades, retention, and referral to special education in fifth grade, the association was largely insignificant once controls were introduced for the family and academic performance in first grade (Alexander, Entwisle, & Dauber, 1996). In other words, students living in campus came from poorer families and had lower academic performance before they were mobile, a finding supported by other studies (Nelson et al., 1996).

Several national studies have also examined the impact of student living outside campus on the academic performance of students across grade levels. These studies were based on a national health survey that provided controls for the demographic characteristics of students but not prior educational performance. These studies found that only frequent-three or more-family moves predicted grade retention (Simpson & Fowler, 1994; Wood et al., 1993). However, another study based on the same data found that even student living in the campus had a negative impact on a combined measure of both academic and behavioral aspects of school performance, although the negative association was found only among children who did not live with both biological parents (Tucker, Marx, & Long, 1998). The authors suggest that two-parent families may have more so-called "social capital" that can help mitigate the effects of residential mobility (Coleman, 1987).

Finally, there is strong evidence that mobility during elementary school as well as during high school diminishes the prospects for graduation. One study that tracked children from early childhood to young adulthood found that residential mobility reduced the odds of high school graduation even after controlling for a

variety of family background variables (Haveman & Wolfe, 1994). Several studies based on the same national database of over 10,000 high school students found that school mobility between the first and eighth grades increased the odds of dropping out of school during high school even after controlling for eighth-grade achievement and other factors (Rumberger & Larson, 1998; Swanson & Schneider, 1999; Teachman, Paasch, & Carver, 1996).

2.1.6 Accommodation Facilities Control and Academic achievement

Various researches have been carried out on the availability of resources and students academic achievement in Colleges of Education (Black, 1998; Blair, 1992; Blandford, 2000).

Level of preparation of teachers for teaching is a critical indicator of education quality. According to Boyd (1996), teacher quality depends not only on observable and stable indicators but also on the quality of training they receive. It also depends on the behaviour and the nature of the relationship teachers maintain with their pupils or students.

In countries that have reached high levels of education, school space and equipment represent marginal investment. However, in countries that have significantly low enrolment ratios, this is one of the most important budgetary categories. Lack of facilities has been a major problem related to achieving quality in Ghana. This is reflected in Banting and Cloete (2004) comments on constraints that militate against improving the output and quality of postgraduate students' performance as stated below:

> *Equipment in most of the laboratories of science departments is mostly obsolete. Chemicals and other inputs needed for scientific experiments are insufficient. In such circumstances, it will be difficult to . . . improve the quality of postgraduate output* (p. 25).

A school should be a place where learners can concentrate on their studies without being concerned about issues of discipline, safety and security (Naicker & Waddy, 2003b:5). This is not always the case, as a number of schools have to deal with disciplinary issues all the time. Both the educators and the learners live in fear of being attacked/assaulted or being injured. As Bissetfy (1998:1) contends, frustrated school principals in South Africa have spoken out on the alarming increase in crime

by armed learners and these principals have warned that lenient education policies are seriously hampering the enforcement of discipline.

Likewise, Naicker and Waddy (2003b:8) maintain that in South African schools issues that have to do with discipline, safety and security have become of increased concern following incidents of robbery, assault, drug dealing and even murder on school premises. Discipline has become a real problem in many schools worldwide. Christine (2004:11) agrees, adding that learners steal, smoke and drink, behave in age-inappropriate ways sexually, bully other learners, are disruptive in lesson time and form gangs in schools knowing full well that they are untouchable. Van Wyk (1999b:89) concurs that the issue is not the degree of school crime brit rather fee impact it has on the quality of learners' education. Learners are missing school because they fear for their personal safety.

Therefore, the external evaluators should evaluate school safety, security and discipline measures that are being implemented in the school. According to the Department of Education (2001d:ll), one purpose is to evaluate the extent to which the school knows about legislation which concerns learners' rights and the effectiveness with which it implements it. Another is to ensure that the school is secure and the learners are safe. The third purpose is to evaluate the effectiveness of the school's disciplinary procedures. Van Wyk (1999b:89) contends that quality education diminishes in a climate of violence and fear. Therefore, supervisors must make judgements and report on the effectiveness of the following: the school's procedures for safety, security and discipline and their implementation; safety regulations in laboratories and workshops and other areas of the school; emergency procedures and how well they are known by learners and staff: the provision for any boarders; the support and care for learners and the school's disciplinary procedures (Department of Education, 2001d:11).

Various scholars like Psacharopoulos, (1993); Aghenta, (1993); Adeyemi and Igbeneweka, (2000) projecting the consequences of poor utilisation of fund within the University system, emphasised the significance of various categories of physical facilities towards the quality of education at the different levels of the educational system. Hallak (1977) identifies school buildings, classroom accommodation, furniture, libraries, laboratories, recreational equipment, apparatus and other instructional materials as contributing to academic performance of students. The NUC (2006) report that the presidential visitation panel that looked into the operations of all

federal universities between 1999 and 2003 revealed that academic and physical facilities at the universities were in deplorable states with insufficient lecture theatres/halls, laboratories and so on. Thus, one begins to wonder how some of these universities scale the accreditation hurdle. That is why Ijaiya (2001) opines that the quality of education being provided for the Nigerian child has become a source of concern and laments on the rot in the educational system. Also, Adeyemi and Igbenewaka (2000) observe that mismatch between growing enrolment and provision of facilities especially in respect of seats for students lead to overcrowding. They added that overcrowding creates undue stress on available space and results in the creation of crowdy behaviour, hanging outside the classroom and obscene activities around the school premises. All these have negative effect on teaching and learning process.

The development and expansion of the country's university system have led to a tremendous increase in government expenditure in this level of education. This expansion and increase in students' enrolment have actually affected the management of universities in the 1980s to date (Eisemon and David, 1990). The resources available though inadequate have equally not been appropriately utilised to meet the increase in students' enrolment and as such, the inadequate funding and utilisation of available fund by the universities has, in no doubts, had calamitous effect on teaching, learning, research and community services. According to Aminu (1986) and Ade-Ajayi (2003), funding and adequate utilisation of funds has a crucial role to play in the quality of academic programmes. In the same vein, Hallak (1977), Agbenta, (1993) Adeyemi and Igbineweka, (2000) emphasised the significance of different categories of physical facilities on the quality of academic programmes. According to these scholars, inadequacy of any category of these physical facilities could lead to overcrowding, stress, unruly behaviour, distractions and gradual decay of symbolic things that help pattern human behaviour. When instructional aids are in short supply, teaching and learning is impaired. This implies that the quality of academic programmes is adversely affected. According to Ajayi (2007) and Okebukola (2002), effective teaching/learning process cannot be guaranteed with inadequate instructional materials.

In the area of plant management, Oladipo (2001) observes that Nigerians have not developed the culture of maintaining facilities, especially public utilities. Aminu (1987) accused Nigerian universities of poor strategic planning in its physical

development. Aminu observes that a large part of the capital fund in some Nigerian universities are tied to useless uncompleted projects that litter the campuses with many of them over designed, grandiose and were stated without proper financial planning. Aminu adds evidence of regrettable inefficiency, neglect and in some cases, gross lack of care in the Nigerian university system. Aminu observes that in certain universities visited, laboratories were dusty; bottles of chemicals were left open on the benches, unlabeled. In addition, the few cupboards had suffered leaks and were dismantled and it was doubtful if any practical work could go on under such conditions. In addition, the microscopes were in a very poor state with mould on the lenses.

Resident students are those who live on campus, and non-resident students do not live on campus. Irrespective of their residential status, Young, Green, Roehrich-Patrick, Joseph & Gibson (2003) reported that the physical facilities of schools that directly or indirectly influence learning include: building foundation and structure, exterior walls, roof, windows, age of building, maintenance, school grounds, doors, floors, interior walls, ceiling, electrical and plumbing, lighting, maintenance, lockers, storage space, security guards, weapons screening, fire control/alarms/resistance, emergency lighting, school order and discipline, air circulation/ventilation, indoor air quality, radon, asbestos and lead paint, cleanliness and material safety (lab chemicals, cleaning supplies). The others are lighting, acoustical quality, internal/external noise, temperature control, design/arrangement, colour schemes, graffiti, peeling paint, crumbling plaster, condition of restrooms, broken windows, privacy, size of school, sense of emotional wellbeing, teacher, principal, science lab, computers, access to library, curriculum, class size and time in learning.

Similarly, Higgins (2007) reported that some of the facilities of the university may include recreation and sporting facilities, bookshops, medical services, career, social and academic counselling services, halls of residence, cafeterias, libraries, clubs and societies and university media and publications. Study skills training and other academic support are also readily available at most campuses which can also directly or indirectly affect academic performance.

The inadequacy of such physical resources like lecture halls, halls of residence, laboratories, libraries and other academic resources translates to poor results because it breeds over crowdedness (Adedipe, 2007 cited by Fabiyi & Uzoka, 2009). Again, Fabiyi and Uzoka (2009) have observed that the planning and design of

educational facilities for schools, colleges and universities have impact on educational outcomes.

According to Earthman (2002) and Schneider (2002) school building design features and components have been proven to have a measurable influence on student's learning. Among the influential features and components are those impacting temperature, lighting, acoustics and age. Researchers have found a negative impact upon student performance in buildings where deficiencies in any of these features exist. In addition, overcrowded school buildings and classrooms have been found to be a negative influence on student's performance. The overall impact a school building has on students can be either positive or negative, depending on the condition of the building. In cases where students attend school in substandard buildings they are definitely handicapped in their academic achievement. A correlational study showed a strong and positive relationship between overall building conditions and students' achievement. Researchers have repeatedly found a difference of between 5-17 percentile points between achievement of students in poor buildings and those students in standard buildings (Earthman, 2002).

Ethnographic and perception studies indicated that poor school facilities negatively impact teacher effectiveness and performance, and therefore have a negative impact on student performance (Jago & Tanner, 2009). Jago and Tanner (2009) in their research concluded that lighting, colour choices and window play a significant role in the achievement of students.

In the comparison of resident and non-resident students' academic performance, Burtner and Tincher (1979) noted that the grade points average of non-resident and resident students were almost identical. This implied that there was no significant difference in their academic performance. Also, non-resident students were less likely to form close friendships with students they did not know before coming to the university and that they dated less frequently than resident students. The authors further noted that it appeared that non-resident students were less satisfied than resident students with their social lives at the university and also they do not participate much in campus activities as compared to resident students.

In another study of Nigerian primary schools, Urwick amd Junaidu (1991), links were reported between the quality of school facilities and some educational process variables that are considered important for the quality of schooling. They found that textbooks, teaching aids, furniture and writing materials have some effects

on four aspects of teaching such as: teaching methods, class activities, the rate at which homework and assignments are set and communication during lessons. Further, the study showed that certain classroom learning conditions such as academic learning time, movement in the classroom, pupils' opportunities for developing reading and writing skills were also affected by school resources. Adeogun (2001) also studied private and public schools in Nigeria and found a strong positive and significant relationship between instructional resources and academic performance.

The rate of growth of the Nigerian University system could be described as phenomenal, doubling every four or five years and probably faster than anywhere else in the world. The total student enrolment at inception of the University College, Ibadan in 1948 was 104. Subsequently, student enrolment in Nigerian universities grew to 1,395 in 1960, 40,000 in 1976 when the Universal Primary Education (UPE) scheme was introduced, and 172,000 in 1988 when the first group of graduates from the 6:3:3:4 system of education enrolled in the universities. By the year 2000, student enrolment jumped to 448,230 and 626,101 in 2003. Current enrolment is estimated at over 800,000 students. The massification of university education elicited a growing concern about quality. Consequently, the National Universities Commission (NUC) put certain measures in place to ensure that student enrolment was within limits of the carrying capacity of the institution as dictated by its resources such as staff, teaching support services, laboratories, libraries, equipment and lecture spaces. This was the rationale for the adoption in 1990 of ceilings of 2.5%, 10% and 15% as annual growth rates for the first, second and third generation universities, respectively. This did not deter the universities most of which continued to enrol beyond their carrying capacities. It was for this reason that the policy of annual percentage increases in enrolment was replaced with carrying capacity as the basis for admission quotas in 2005.

Universities were required to admit within their allocated admission quotas which were based on their available resources. These quotas were maintained at the same level for the next three years before they were reviewed, albeit only slightly upwards. Projecting students' enrolment trends in Nigerian Universities, Sawadago (1994) points out that one of the greatest achievements of the African Universities since 1980's is the high rate of students' enrolment in almost all the Universities. Sawadago indicates that students' enrolment in the Universities in Africa increased by 61 per cent between 1980 and 1990 and that the number of students enrolled increased

from 337,000 to 547,000 within the period. Unfortunately, these increased opportunities were not supported by adequate funding.

Presently in Nigeria, the Joint Admissions and Matriculation Board (JAMB) which was established by Decree No. 2 of 1978 (amended by Decree No. 33 of 1989) is responsible for conducting Matriculation Examination for entry into all degree awarding institutionss in Nigeria and for placing suitably qualified candidates into available places in the institution. The Board conducted the first Matriculation Examination for entry into all degree awarding institution in Nigeria in 1978. Usually, the proprietor of each institution provides the Board with guidelines to be adopted in selecting candidates for the respective institutions. For Federal institutions, the Federal Government stipulates that a percentage of the candidates should be selected on merit, another percentage on locality, which in most cases, is the geographical or socio-cultural area contiguous to the institution. A proportion is also reserved for candidates from Educationally Less Developed State (ELDS). However, despite stipulated guidelines for admission and enrolment of students into Nigerian Universities, this modalities have often been over flogged and misused to the detriment of the University functional capacity in the manner of admitting students that are well over the infrastructural and funding capacity of the Universities. This has not only retarded development, but also affected quality teaching and learning and the academic performance of students.

Okebukola (2004) notes that there is student population explosion in Federal and State Universities due to over enrolment without expansion of facilities. Classrooms are over-crowded while laboratories and other learning materials are grossly inadequate because of insufficient funding which is the cry of all the universities. The UNESCO had recommended a standard budget allocation to educational sector to stand at 26%. In 2003, out of a national budget of 765.1 billion naira, only 13.9 billion was allocated to education and this was 1.83%. (Post Express: 2003). Thus, the tertiary education sector in Nigeria, particularly the universities have suffered from long periods of neglect, this has led to what the then Minister of Education (Chinwe Nora Obaji) described in her remarks in 2005 at a meeting with members of the Committee of Vice Chancellors (CVC) of Nigerian universities as managerial inadequacies and indiscipline, according to the minister, these have now caused other problems including over population caused by over enrolment, poor maintenance culture, poor sanitary situations, low quality teaching, examination

malpractices, late admissions, 'sorting' (students bribing lecturers to pass the course), cultism and other social vices. During the meeting, Professor Nimi Briggs, the Vice Chancellor of the University of Port Harcourt and the chairman of the CVC had listed problems facing universities as poor funding, accreditation of courses, university autonomy and non-release of the reports of university visitation panels. Eleweke (2006) on the other hand argues that some of the problems in our education system are, poor funding of education, lack of access to education by the deserving ones as a result of high level of poverty among citizens and low discipline among stakeholders.

State universities appear to be the worst hit by poor funding and irregular admission policy, the report of a national study carried out in 2005 using the University System Annual Review Meetings (USARM) by the National Universities Commission (NUC) concluded that "Over 30 per cent of state-owned universities were starved of funds by their proprietors…grants for payment of staff salaries were acutely short in some cases, compelling the authorities to augment through revenue sources that were unhealthy for the academic life of the institutions…all the state universities had a total proprietor grant of about N35 billion ($140 million). This compares unfavourably with N50 billion ($200 million) received by the 29 federal universities within the same period". While there may seem to be no general consensus on what has led to the sad state of affairs in Nigeria's educational system, all concerned stakeholders however seem to agree that an interventionist strategy needs to be introduced because according to Levi Obijiofor (2005), time is long overdue for university vice-chancellors, rectors of polytechnics, federal education ministry officials and the Nigerian public to engage in serious discussion about the pedagogy of university education in Nigeria.

With the takeover of the funding of hitherto regional universities by the Nigerian Federal Government, vast expansion of the system and rapid increase in student enrolment set in. Enrolment is indeed the life blood of all educational institutions. By 2002, the number of public universities had risen to 40 i.e. 25 Federal and 15 State Universities and 75 public universities as at 2006.

Student enrolment in Nigerian universities grew by 1.200 per cent between October 1999 and March 2006 (NUC report, 2006). The latest analysis of the comparative performance of the Nigerian university system over three governance periods shows that while student enrolment stood at 57,542 in October 1979, it grew to 300,618 in 1999 and now stands at 750,235. This is the case in federal universities.

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The situation is worse in state universities. Nigeria had a total of 14 universities in 1979 with 7,545 teachers and 57,542 students making the mean teacher/student enrolment ratio to be 1:8. However, the teacher/student enrolment stood at 1:16 in 1999 when the number of university students rose to 300,618 and universities rose to 36. The number of teachers then was 19,309. Although, the number of teachers has risen to 35,592 to cater for the current total student population, the mean teacher/student ratio has further worsened to 1:21 with the number of universities rising to 76. According to Okebukola (2006) on NUC calculations on teacher/student ratio based on approved Minimum Academic Standards laments that "the system requires about 21,912 teachers. This leaves a deficit of 5,056 of teachers in federal universities in the country". Overcrowding at institutions and inadequate funding according to Obanyan (1999) are contributing factors to the decline in the quality of higher education. To be precise, the system has far outgrown the resources available to it to continue offering high - level quality education.

On the issue of facilities, the NUC report (2006) admits on a comparative basis that the facilities/carrying capacity of the universities which stood at 78 per cent in 1979 dropped to 69 per cent presently with the worst level of 38 per cent recorded in 1999. In fact, inadequate funding according to the NUC report (1994) has resulted in problems such as the breakdown and deterioration of facilities, shortages of new books and current journals in the libraries, supplies of laboratories and limited funding research. It should be recognised that the provision of a conducive environment is a prerequite for attaining the best from Nigerian academics and all those who make thinking their business. It is not that Nigerian scientists and scholars are incapable or incompetent of conducting research but the reason for the lull is basically lack of both an enabling environment and necessary incentives.

Another aspect of school resource condition that seems to affect student learning is overcrowding as a result of high enrolment amidst limited educational space. The political response to the social demand for university education has led to overcrowded classrooms, double sessions and overstretched teachers and facilities (Nwagwu, 2006). With political and social instability, economic recession and consequent government inability to adequately supply needed funds, teachers and infrastructure to cope with the increased students enrolments, the quality of learning outcomes and standard attained by graduating students have become questionable and of national concern. An overcrowded building is normally defined in terms of

assigning more students to a building than it is designed to accommodate. Research evidence has shown that students in overcrowded classrooms do not score as high on achievement tests as students in non- overcrowded classrooms. Corcoran (1988) reports that overcrowding causes a high rate of absenteeism among students. Teachers reported that overcrowding results in stressful and unpleasant working conditions. To confirm Corcoran's assertion, Hawkins and Dossey (1998) surveyed 599 students and 219 teachers. Their study reveals that 75% of teachers reported that overcrowding negatively affected both classroom activities and instructional techniques, 40% of students reported they had problems concentrating in their class when learning something new.

In order to ascertain the reported effect of overcrowding, Case and Deaton (Glewwe & Kreemer, 2005) conducted a study of South African students to determine the effect of class size on student achievement. They found that decreasing the student-teacher ratio from 40 to 20 raised students' reading test scores (conditional on years of school attendance). Case and Deaton's estimates indicate that raising school resources (as measured by student-teacher ratios) increases years of completed schooling and enrolment rates for blacks but not for whites. Since blacks had much larger class sizes than whites, this is consistent with the idea that there are diminishing returns to reductions in class size. They estimate large effects from reducing class size at blacks schools such as: decreasing the student teacher ratio from 40 to 20 increased grade attainment by 1.5 to 2.5 years. According to Glewwc and Kreemer, several issues raise concerns about the interpretation of these results. A key point is that, even if blacks could not influence class size in their children's schools, someone, presumably some government officials, made decisions that influenced class sizes in South Africa's black schools. If these decisions were influenced by education outcomes in those schools, or were merely correlated with such outcomes for some reason other than the causal impact of class size, they could yield biased estimates of the impact of class size (and, more generally, school resources) on those outcomes.

Saint (1993) observes that high population growth and increased access to education have boosted the social demands for public university education leading to rising university enrolment and a proliferation of tertiary institutions. Universities have also changed, becoming mass-based and diversified institution operating under severe constraints.

Ayeni (2006) similarly affirms that the public universities in Nigeria lack the financial resources needed to maintain educational quality in terms of teaching and research in the face of enrolment explosion. Butare (2004) and Emunemu (2009) observe that there had been continued decline of public funding in developing countries, while the demand for student enrolment has continually been on the increase. It thus seems the greatest challenge that is faced by public universities particularly in Africa is in sustaining and improving the quality of education and continuously expanding enrolment while actual resources available to the universities are dwindling. For example, the World Bank (1988:74) found that the average expenditure per student in a public university in North Africa and the Middle East has fallen from US$3,200 to US$1,900 in the past decade alone. Similarly, in Sub-Saharan Africa, the average expenditure per student has fallen from US$6,300 to US$1,500. This has therefore resulted to reduction in the expenditure of higher institutions of learning and also made them seek for new sources of funding and economical utilisation of their existing resources (Butare, 2004).

Fabunmi, Peter and Isaiah (2001) in their study of secondary schools in Oyo State, Nigeria used data from the West African School Certificate Examination results between 1997 and 2002. The analyses reveal that when class factors such as class size, student classroom space and class utilisation are taken together, they determine student performance significantly. But when the class factors arc taken separately, all except classroom space show significant relationship with students' performance.

2.1.7   Studies on Academic Achievement

Whole-school evaluation is regarded as a system of evaluating schools in South Africa that aims to ensure that the maintenance and improvement of standards both in individual schools and in the education system as a whole (Naicker & Waddy, 2002:8), According to the Department of Adult Education (2000b:5), the school as a whole is responsible for the education of its learners, within the framework of the policies set by the government. Therefore, in South African schools this initiative (whole-school evaluation) looks at what is happening in the school as a whole.

They regard this approach (whole-school evaluation) as a joint collaboration between schools, districts and supervisory units making judgements about the school looking at both inputs and outcomes. As a result all individuals have an important role to play in order for the school to improve. For example, schools are expected to

conduct self-evaluation prior to the external evaluation and this enables the schools to make all the necessary preparations before being visited by the supervisory teams for the external evaluations. Naicker and Waddy (2002:28) regard the purpose of self-evaluation as enabling the school to reflect on its performance with regard to its aims and priorities; measure its performance against local needs and national standards; establish strategies for monitoring and evaluating its work and prepare for external evaluation.

The South African whole-school evaluation is conducted according to guidelines and criteria that are being set by the Ministry of Education (discussed in the previous sections). These guidelines provide guidance on how supervisors should carry out their responsibilities and which school activities they should report on. The emphasis throughout is on supervisors using a range of data and indicators to reach evaluative conclusions based on evidence, rather than simply to provide descriptions of what happens in the schools (Department of Adult Education, 2001b:3). Supervisory units also have to use instruments set by the National Ministry when conducting their evaluations (external evaluations). The Department of Education (2001b:2) contends that it is important that parents also understand the application of whole-school evaluation instrument since it (whole-school evaluation instrument) affects the quality of education their children receive. Since whole-school evaluation followed in South Africa is transparent, everyone knows what is expected of him/her.

Schools are evaluated comprehensively. Thus, numerous areas are looked at so that multiple sources of information are tapped. This means that valid and reliable judgements can be provided both to the schools and to departmental decision-makers (Naicker & Waddy, 2002:9), The focus of whole-school evaluation in South African schools is on both internal monitoring and external evaluation that is self-evaluation by the school and external evaluation by the supervisory units and the monitoring and support provided by the district-based support teams (RSA, 2001:9).

Systemic evaluation studies offer a powerful lens through which to view the performance and health of the education system (Mpumalanga Department of Education, s,a.:viii). Systemic evaluation is an approach by which a system of education is evaluated. The objective is holistic assessment of the effectiveness of an entire system and the extent to which the vision and goals of the system are being achieved (Naicker & Waddy, 2002:9). This evaluation refers to evaluations that are conducted at key transitional stages of the education system, namely, grade three

(foundation phase), grade six (intermediate phase) and grade nine (senior phase). These phases can be regarded as the key or exit points in the education system, as they take the learner to the next level or phase. Naicker and Waddy (2002:39) regard systemic evaluation as one of the initiatives aimed at obtaining reliable information, monitoring quality and standards of performance and ensuring development in the education system. But specifically, systemic evaluation aims to: inform (policy formulation, revision of programmes and intervention programmes); monitor and sustain performance; promote and ensure accountability; gain public confidence in the education system and benchmark the performance of the system nationally and internationally (Naicker & Waddy, 2002:39).

Systemic evaluation provides monitoring and evaluating activities that help to determine the quality and standards of performance of the system as a whole. Systemic reform is based on a theory that assumes the highest level of education will be achieved if all of the pieces and components within a system are aligned and working in cooperation toward important common goals. One role of systemic evaluation is to verify this theory as applied to the system (Webb, 1997:2). This approach, therefore, looks to effectiveness of the entire education system. As the Department of Education (2001c:42) suggests, the systemic evaluation approach needs to be holistic by taking into consideration gender issues, inclusivity, human rights, adult basic education and training (ABET), early childhood development (ECD) and the way these address barriers to learning and development at school, circuit, district, provincial and National levels. Naicker and Waddy (2002:39) maintain that systemic evaluation activities should give useful feedback to the schools that are involved in the exercises but the focus should not be on the performance of the individual schools. The Department of Education (2001c:10) maintain that systemic evaluation should answer the question: how well and to what extent do learners master the basic skills, especially in the areas of literacy, numeracy and life skills, and what are the factors influencing the acquisition of these skills. According to Mpumalanga Department of Education (s.a.:l), the foundation of Systemic Evaluation lies in using learner performance as the point of reference against which the rest of the education system is evaluated. The interest in learner achievement or performance assessment coincides with major reforms of learning goals and content standards, curriculum, instruction, the qualifications of educators, and the relationships among parents, communities, schools, government, and business.

Therefore, the range of factors that can influence learner achievement and performance is wide.

Systemic evaluation studies describe prevailing conditions within the system being evaluated as well as the relationships between various conditions and factors operating within the system. Knowledge of these relationships is essential for the understanding of the complex dynamics of the education system and for implementing specific strategies and policies to attain desired outcomes (Mpumalanga Department of Education s.a.:84). Webb (1997:2) is of the opinion that much still needs to be learned about systemic evaluation and measuring change in large education systems.

According to Webb (1997:2-4), the following are a few areas that need attention:

- **Equity**. Assessing equity in learner learning throughout the system is a critical concern and raises important questions for systemic evaluations. More attention needs to be given toward developing ways for measuring a system's progress in achieving equity in learner learning.

- **Achievement measures.** Assessment technology is insufficient to measure all-important knowledge of science and mathematics. Valid techniques to apply on a large scale still need to be developed to measure how learners are able to reason, to solve complex problems, to build arguments, and do scientific inquiry. Habits of mind, meta-cognition, and dispositions are important qualities for pursuing science and mathematics, but are very difficult to measure.

- **System saturation.** Systemic evaluation, like systemic reform, must keep the entire education system within its view at all times. The most common approach to evaluating systemic initiatives was to study the components and parts of the system. Less is known about how to consider the interaction among components, their linkages, and what are magnifying effects. More still needs to be learned about tracking through a system change attributable to the systemic initiative.

- **Time frame.** It is unclear how much time must be allowed before various changes in an education system should become observable and sustainable. In judging the value of systemic reform, systemic evaluation must attend to the

institutionalisation of structures and functions that will sustain movement toward positive outcomes. Evaluation is frequently called upon to produce information and judgements before sufficient tune has transpired and enough effort has been expended to fully reach goals. More needs to be understood about how to identify and measure interim attainments and progress. There is also need to understand more about what is a reasonable amount of time for a system to make significant changes.

In recent years many schools have experimented with a number of different methods of evaluating quality, with more or less positive experiences (Relic, sail). Nevo (1995:29) contends that useful evaluations are not one-shot activities but rather on-going endeavours. To ensure that there is quality teaching and learning within the school, evaluation of both the individual staff member and that of the school as a whole should be undertaken at constant intervals. As Quinlan and Davidoff (1997:11) put it, classroom practice and experience are inextricably linked with the school as a whole.

Naicker and Waddy (2002:64) regard the developmental appraisal system which focuses on the individual educator, as part of the wider educational changes that are framed within a whole-school evaluation approach that works with the institution as a whole and targets all elements of the school to bring about meaningful and sustainable change. Likewise, Blandford (2000:143) regards the appraisal process as the mechanism that enables educators and principals to relate individual targets to school targets. Therefore, both the individual educator and the school as a whole should be constantly evaluated in order to check if these meet their needs and goals as well as those of the entire school community. According to Goddard and Emerson (1992:21). the successful school is the one where individual educators are motivated; where the disparate talents of the various members of staff are harnessed; and where all efforts are co-ordinated so that the school's objectives are fulfilled. Appraisal provides a process which can foster this integration of individual educators with the school as a whole.

Developmental appraisal system is part of whole-school evaluation approach and should be viewed in relation to other initiatives that aim to make schools centres for effective teaching and learning (Naicker & Waddy. 2002:64). Lytle (2002:166) maintains that no programme has all the answers for school improvement and each programme requires supplemental elements. Meanwhile, Cullingford (1997:119)

argues that successful reform focuses on the school as a whole rather than one particular factor such as the curriculum or educator development. This does not, however, imply that the latter is unimportant. Without educator development there can be no school improvement. As Fullan in Du Four and Berkey (1995:2) puts it, it is only when enough people within an organisation (the school) change that the organisation can be transformed.

According to Naicker and Waddy (2002:64), in relation to the whole-school evaluation approach, developmental appraisal system provides a useful way in which schools and the Department of Education, South Africa can determine the actual needs of educators. Educators whose needs are addressed or attended to are more likely to be motivated and work effectively and efficiently. This can help the school to achieve its goals and objectives. Although the central concern is with the personal and development of educators, appraisal has a vital role to play in the overall development of the institution (Jones, 1993:8). Davidoff and Lazarus (2002:149) concur that appraisal is a central developmental process in the school. Therefore, developmental appraisal system should be seen as a pre-requisite of whole-school evaluation. Whole-school evaluation focuses on everything taking place in the school environment including the needs of the staff that are covered in the developmental appraisal system.

Because developmental appraisal system is formative and developmental, it can identify areas where educators need support. This makes the planning of relevant interventions, which complement other interventions that are designed to improve the whole school, possible (Naicker & Waddy, 2002:64). Blandford (2000:143) concurs and maintains that the function of appraisal within a learning organisation is to provide information on the individual and institution requirements, which, when met, can promote organisation-wide development. Thus, developmental appraisal system facilitates overall educational improvement (Naicker & Waddy. 2002:64). While developmental appraisal system is conducted in order to address the needs of the individuals, whole-school evaluation is conducted in order to address the needs of the school as a whole including those of the individuals in the school. Consequently, Quinlan and Davidoff (1997:14) are of the opinion that out of the whole-school evaluation, certain staff development needs can be identified. These include the personal needs of educators or the organisational needs of the school.

According to the National Education Policy Act (RSA, 1996b:4), the National Ministry may determine national education policy in accordance with the provisions of the Constitution and this Act. For example, the National Minister of Education may determine national policy for the planning, provision, financing, staffing, co-ordination, management, governance, programmes, monitoring, evaluation and well being of the education system. Whole-school evaluation is one of the policies in which the National Ministry should play an important role in order for it to be implemented effectively. Although implementation takes place at the school level, the National Ministry should ensure that conditions are favourable for schools to implement it.

According to the National Policy on Whole-School Evaluation (RSA. 2001:17-18), for whole-school evaluation to take place successfully the National Ministry must provide, within its annual education budget, funding that should be distributed to all the Provinces as a conditional grant specifically for school evaluation activities and for supporting schools in their effort to implement the recommendations of the evaluation report. This can be of great help to particularly those schools that are not financially strong. The Ministry must set up an appropriate national body to oversee the development, administration and periodic review of the National Policy on Whole-School Evaluation, such as policy, guidelines and instruments, in response to changing circumstances. And also be responsible for developing and implementing a policy for evaluating provincial and district performance in contribution to the implementation of the whole-school evaluation policy and the support they give to improving performance in schools (RSA, 2001:17). The Ministry, thus, oversees that all levels perform their responsibilities so that whole-school evaluation becomes successful.

The National Policy on Whole-School Evaluation (RSA, 2001:17) maintains that the Ministry should also ensure that the evaluation is administered effectively by providing guidance and support to Provinces on how the evaluation should be organised and conducted. This implies that the National Ministry should empower the Provinces as well as the district to enable them not only to supervise the implementation of whole-school evaluation but also to provide assistance to schools whenever necessary. It is also the responsibility of the National Ministry to decide on the national sample of schools to be evaluated and to determine the length of evaluation cycle. Once the sample has been decided, the National Ministry should

inform the Provinces of the number and sample of schools to be evaluated (RSA, 2001:17).

Although the evaluation (external evaluation) is conducted by supervisors from the Province, it is the responsibility of the National Ministry to oversee the training, accreditation and registration of all supervisors. The Ministry should also create systems for monitoring the quality of whole-school evaluations and die work of the supervisors (SRA, 2001:17). Thus, the National Ministry is actively involved in the whole process of whole-school evaluation as it interacts with the Provinces all the tunes to ensure that everyone not only understands whole-school evaluation but is also able to implement it effectively. Thus, the National Ministry should not only monitor the implementation of whole-school evaluation but should also actively support the Provinces in ensuring that whole-school evaluation indeed takes place at the school level.

The National Policy on Whole-School Evaluation (RSA, 2001:17) also maintains that the Ministry should collect certain raw data garnered through school evaluations from the Provinces in order to enable the Minister to construct an annual report. This data may be used to guide the formulation and review of education policy. Naicker and Waddy (2000:25) maintain that the report on the results of evaluation is not confidential. Thus, a summary of the report must be made available to those who may request it. This is in line with one of the purposes of whole-school evaluation, namely to keep stakeholders and society at large always informed about the performance of schools. Thus, the National Ministry should maintain an accessible national database on the findings from whole-school evaluation monitoring and evaluation that can be used to refine indicators and provide benchmark data (RSA, 2001:17-18). Benchmark data enable schools to compare their performance to the performance of schools having similar population characteristics to their own (Griffiths, 1998:8).

The role of the Provinces is crucial in ensuring that whole-school evaluation takes place effectively in schools. The Provinces act as links between the National Ministry and the districts and/or the schools. According to Chisholm (2000:82-83), the Provinces have two main roles and functions. First, Provinces are supposed to inform national policy development through relevant contributions to policy development processes. Second, Provinces are responsible for successful implementation of policy, nouns and standards. Thus, the key role of the Provinces is

to take the responsibility for all aspects of the implementation of whole-school evaluation.

Provinces create or must create an environment that is appropriate for effective whole-school evaluation to be implemented in schools. Naicker and Waddy (2002:17) maintain that the Province has a crucial role to play prior to die external evaluation as well as after the external evaluation.

Once the provincial supervisory unit (PSU) is informed by the National Ministry which schools will be evaluated, it (the Province) selects the supervisors who will be involved. It then informs the schools, sends the appropriate forms for completion and also a list of the documents the supervisors will need (Naicker & Waddy, 2002:17). The Province should ensure that all the relevant structures (supervisory teams, district support services and school principals) understand their roles in whole-school evaluation before the external evaluations are conducted. For example, the Province should ensure that district officials have work-shopped all school principals on whole-school evaluation processes before it is implemented.

Provinces have also to ensure that sufficient funds are available within their annual education budget to enable support services and schools to carry out developmental activities in accordance with the National Policy. Provinces have also to show that this responsibility is being carried out equitably by publishing how these funds are allocated and what criteria are used when distributing funds to different schools (RSA, 2001:18), This shows that Provinces have an important role to play in order for whole-school evaluation to be effective in schools.

After the evaluation the Province processes the information gathered by the supervisory teams from various schools and submit that information to the National Ministry (Naicker & Waddy, 2002:17). The National Policy on Whole-School Evaluation (RSA, 2001:18) concurs and maintains that each Province must ensure that an appropriate provincial database is established. This database must be fully accessible, capable of providing information that can be used to enable it to benchmark its performance in comparison with other Provinces and linked to the Ministry's database on quality assurance. This information (data) is essential in order to strategise the improvement plans.

Most schools in South Africa have suffered from extreme shortages in terms of material and financial resources. This has deeply affected the life of schools and, in some cases, has made it almost impossible to pursue educational goals (Davidoff &

Lazarus, 2002:127). Therefore, Provinces should provide a budget to help schools respond effectively to the recommendations made in an evaluation report and should also put in place contingency plans for dealing with schools that need urgent support. This includes providing appropriate in-service training programmes (RSA, 2001:18). Financial support from the Provinces is essential, particularly for the disadvantaged schools if these schools are to cope with the shortfalls that may be identified by the supervisory teams. As Davidoff and Lazarus (2002:31) suggest, it is important that efforts are made to ensure that these budget allocations are adequate to support effective teaching and learning in the schools.

Provinces should put in place policies and support services designed to provide appropriate administrative support, advice and guidance to help schools respond to the recommendations emanating from external evaluations (RSA, 2001:18). This implies that Provinces should constantly monitor the processes of whole-school evaluation at every level under their jurisdictions. If whole-school evaluation fails. Provinces should take the responsibility like all other levels.

The supervisory team is responsible for the day-to-day operations of whole-school evaluation under the direction of the Head of the Provincial Department of Education but within a nationally coordinated framework. This is to ensure synergy and the integration of all activities associated with quality assurance (RSA, 2001:10). The supervisory team is the team that does the practical work as the team members visit the selected schools to conduct evaluations. Nevo (1995:48) contends that external evaluators (supervisory team members) enjoy a higher degree of independence, as the school does not directly employ them. Thus, these evaluations, to some extent, can be more objective and credible.

Drake and Roe (1999:291) are of the opinion that if outside evaluators are used, their roles must be defined and clearly understood before the evaluation process begins. Such clarification is important to offset misunderstandings on the part of the individuals in the school. Naicker and Waddy (2002:18-19) list the three stages where the supervisory team has to be involved in when conducting external evaluation, namely prior to the evaluation, during and after the external evaluation. It is very important not only for the team members to know and understand their roles during these stages, but also for the principal and the school whose assistance and support would be required during all these stages. Drake and Roe (1999:291) contend that not

having a clear understanding about everyone's roles can have a negative impact on the evaluation process.

According to Naicker and Waddy (2002:18). the supervisory team under the team leader agrees with the school on dates for a pre-evaluation visit, collecting the school's documentation and post-evaluation feedback to appropriate personnel. Naicker and Waddy (2002:18) also maintain that during this stage, the supervisory team visits the school to discuss all the necessary arrangements, explain the procedures to the staff and answer the questions that the staff members may have. This is a crucial stage because it is during this stage that staff members are made aware of what is expected of them. The concerns of the staff members as well as the fear that they may have for the coming of the outside evaluators in their school can be addressed.

During this stage the supervisory team decides on the nature of the evaluation and how evaluation responsibilities can be shared (Naicker &Waddy, 2002:18). Pretorius (1998:104) points out that a style of consensus and shared decision-making is important because every member of staff can then be accountable. Naicker and Waddy (2002:18) also contend that the supervisory team has to provide the school with a brief profile of the team members, information about the duration of their visit to the school and the subjects/learning areas and other areas that are to be evaluated. In this way everyone is made aware of what is going *to* happen during the external evaluation and confusion is minimised.

During the evaluation period, the supervisory team carries out its functions according to previously agreed times and other arrangements. The team scrutinises all relevant records such as attendance registers, records of learners' performance, curriculum plans, learners' personal record files and notebooks (Naicker & Waddy. 2002:18). The information obtained from these documents can be used to help learners to improve their performance, to provide essential information to educators and to address areas in need of improvement (Squelch & Lemmer, 1994:13). As Davidoff and Lazarus (2002:6) put it, the quality of education in the classroom should always be the main concern.

According to Naicker and Waddy (2002:18), the supervisory team should spend at least fifty percent, that is, half of their time at the school observing lessons. This shows how important educative teaching is. Thus, the quality of education in the classroom should always be the major concern for all stakeholders, Jones (1993:69)

maintains that classroom observation is likely to be more effective in improving teaching if the focus of the observer is narrowed to certain specific features of an educator's work in the classroom. An educator's activities in the classroom are many and varied, if the observer attempts to observe all of these, little is likely to be gained and the result is likely to be some rather superficial observations (Jones, 1993:69). Therefore, the supervisory team should also observe activities outside the classroom in order to have a better understanding of the individual learner.

The supervisory team also has to study the school premises and resources that are available in the school and give feedback on what has been observed (Naicker & Waddy, 2002:18). Nias, Southworth and Campbell (1992:198) regard the availability of resources, especially educator time and commitment, and materials and equipments as one of the conditions that facilitate or inhibit the improvement and development in the school. Thus, the supervisory team should establish what resources are available in the school and/or whether those resources are enough and suitable to addl'ess the needs of the individuals in the school. Moreover, Davidoffand Lazarus (2002:128) state that resources also need to be appropriate to the school in terms of its vision and aims. Therefore, the team should also interview a sample of all the stakeholders (Naicker & Waddy, 2002:19). This can help the team to acquire more information about the individuals as well as the school and get the views and perceptions of the stakeholders.

After the evaluation, the supervisory team processes all the information they (team members) collected and finalise their ratings. The team at the conclusion of their visit also gives an initial oral report to the school (Naicker & Waddy, 2002:19). The Department of Education (2001d:6) adds that the supervisors must provide a brief oral report to individual educators on the quality of their work, recommendations as to how the school might improve its practice, a brief oral report to heads of each learning area evaluated on quality of work in that learning area and a brief report to the principal on the main judgements. These individuals should take oral reports seriously as they form an integral part of the external evaluation.

At a later date, but normally not longer than a week after the evaluation, the team leader must return to the school to provide a more detailed oral report to the principal, school governing body, school management team and professional support teams (Department of Education, 2001d:6).

Too often, there is a big gap between the intentions of the policy formulators and what actually happens in the classroom or what is actually experienced by educators in the school as policy implementers. Samoff (in Christie, 1999:284) maintains that policies are best understood in terms of practices on the ground rather than in terms of idealist statements of intention or blueprints for action. Therefore, the district officials should not only monitor the implementation of the policies but should also ensure that these policies are well understood by the implementers. Districts, as they are close to the school should, therefore, have support services which have to address the needs, the concerns and the problems of the individual schools.

Thus, for whole-school evaluation to succeed, the district support services should monitor and support schools in their efforts to raise standards and the quality of educational provision (Department of Education. 2001b:9). But Chisholm (2000:84) maintains that the different ways in which provincial departments are vertically organized makes it difficult to talk of implementation in common terms across Provinces. According to Chisholm (2000:84), while some Provinces have provincial head offices followed by districts and men circuits and schools, others have an intervening level in the form of a region between Provincial Office and districts, for example, in the Provinces like. Eastern Cape. KwaZuhi-Natal and Limpopo.

District support services are also expected to co-ordinate staff development programmes in response to educators' individual professional needs, the findings of whole-school evaluation and the requirements of provincial and national policies and initiatives. And also district support services should guide schools in the implementation of the recommendations of whole-school evaluations (RSA, 2001:19). Because of different organisational structures and levels of authority, some districts., particularly those in the Provinces with regions may sometimes be unable to support the schools adequately. Districts in the Provinces with regions tend to be largely administrative entities with no curriculum support functions in evidence (Chisholm, 2000:84).

The executive authority for the professional management of schools is vested in the principal supported by the school governing body (RSA, 2001:19). The principal is the key to educational change and school improvement. Thus, the role that the principal plays in everything that takes place in the school is very crucial. Although the principal plays a crucial role, he/she relies on the support of other staff members, as he/she cannot run the school single-handedly. The principal may

delegate to an appointee or nominee from the staff certain functions, including quality management matters, whenever the need arises (RSA, 2001:19-20). That certain tasks have been delegated to someone does not imply that the principal is no longer in charge. The principal has still to support and assist that individual so that the delegated task/s can be effectively executed.

The emphasis is always placed on the role of the school principal when it conies to the translation of policy initiatives into practice. Therefore, it is the principal's responsibility to ensure that whole-school evaluation is conducted successfully should his/her school be selected for whole-school evaluation. As Lund (1996:11) suggests, the success of any project is crucially linked to the effectiveness of the person who manages it. Terry (1999:30) maintains that a principal needs to know when to move ahead to keep reform efforts going and when to slow down to firm the ground. The principal needs to plan for various stages in the implementation of whatever change being introduced in the school. Accordingly, the principal has to perform certain duties at different stages of whole-school evaluation, namely prior to the evaluation, during and after the evaluation (Naicker & Waddy, 2002:19-20).

According to the National Policy on Whole-School Evaluation (RSA, 2001:20), the principal should identify an evaluation co-ordinator to liaise with the evaluation team during the whole-school evaluation exercise. Naicker and Waddy (2002:19) add that the principal should do this in liaison with the school governing body and the school management team. For whole-school evaluation to be successful, all staff members should be fully involved from the onset. Therefore, all staff members should be involved in identifying the whole-school evaluation co-ordinator. An evaluation co-ordinator chosen by all staff members is more likely to earn the respect of the staff and give educators ownership of the school's management.

The principal should also acquaint himself/herself with the reasons, requirements and guidelines for the evaluation and also be able to explain these as well as the whole process of whole-school evaluation to the staff members. The principal should also be able to answer whatever questions the stakeholders (the school governing body, the school management team, the educators and to a lesser extent, the learners) may have regarding everything concerning the whole-school evaluation. According to Naicker and Waddy (2002:19). questions could be about the reasons for the evaluation, why the school (their particular school) was chosen, the areas to be sampled, how they as stakeholders should be involved in the process, dates

for evaluation and how the evaluation is to be undertaken, the follow-up and so on. If the stakeholders have the necessary information about the whole-school evaluation, they are likely to support the principal to ensure that the whole process is successful.

As is the case with all other departmental initiatives, the principal should encourage and motivate all stakeholders to ensure that they understand the process and also to co-operate with the external supervisors. Some of these stakeholders may be apprehensive about the evaluation. The principal should also ensure that all required documentation is accurately prepared and ready for the supervisory team (Naicker & Waddy, 2002:19). Basically, the principal should ensure that all the necessary documents that may be needed by the external evaluators are in place even before the supervisory team members visit the school. He/she should also ensure that everyone in the school is well geared for the whole-school evaluation.

The principal should co-operate with the evaluation team, especially by providing interviews at appropriate times (RSA, 2001:20). The principal should also encourage everyone associated with the school to co-operate, support and respect the evaluation team. As Steyn (2002a:255) puts it, the principal should take the responsibility and accountability for the participation of stakeholders in school management. Likewise, Porter and Lemon (1988:31) maintain that the principal has a unique opportunity to shape the climate of a school and to change the behaviours, attitudes, goals, needs and even the values of subordinates.

The principal should also grant and facilitate full access to school records, policies, reports and other documentation, including those of the school governing body during external evaluations conducted by the supervisory units (RSA, 2001:20). Naicker and Waddy (2002:20) add that the principal should also co-operate fully with arrangements for lesson observations and the review of learners' books. These documents are very crucial to the supervisory team, as it is among the other things, through these documents that the supervisory team could be able to ascertain the status of the individual school. Without going through these documents, it could be difficult to these teams to determine whether the individual school needs assistance or not and/or what problems does the school experience.

The principal should, after reviewing the report and the recommendations of the evaluation team thoroughly distribute a written summary of the report with its main conclusions and recommendations to all stakeholders within one week of receiving the report (Naicker & Waddy, 2002:20). Because of the uniqueness of

schools, distributing the report may, in some instances, not be appropriate, adequate and effective in some schools. As a result of the poor educational background of some school governing body members and parents, particularly in the previous disadvantaged school, the principal may be required to play a crucial and leading role in discussing and/or interpreting the report/s with these individuals. As the National Policy on Whole-School Evaluation (RSA, 2001:20) suggests, the principal should disseminate, where appropriate information in other ways within two weeks of receiving the report.

The school principal should also, in collaboration with the support services and the school governing body, produce an improvement plan in response to recommendations made in the evaluation report within four weeks of the receipt of the written evaluation report (RSA, 2001:20). This should be done in consultation with all stakeholders if the school improvement plan is to be owned and supported by the school community. Thus, the principal should challenge others to identify purpose and create a vision and long-term goals that require their collective, creative efforts to accomplish (Weller & Weller, 2000:8).

Once the school improvement plan has been developed/completed, the principal should send it to the District Office (manager) for approval and should also work with the professional support services assigned to the school to implement the plan within the stipulated time frames (RSA, 2001:20). The principal should address those areas that have been identified by the report of the external evaluators as areas that need improvement (Department of Education, 2001 d:7). The Ministry of Education (2003:4) cautions, however, that the school improvement plan must be realistic and manageable by the staff responsible for its implementation.

The school's environment in which any educational policy is put into practice is part of what shapes that particular policy. According to Hallinger, Bickman and Davies (1996:532), the school environment offers both constraints and resources that shape the situation in which the individual operates. Vandenberghe (1992:32) maintains that the internal functioning of a school is determined by many known and unknown factors. These factors have positive and/or negative impact on the implementation of any educational policy. Therefore, the school, especially the principal should not only be aware of these factors but should also try to change those factors that may have a negative impact on the school.

The context in which the individuals work present different constraints, needs and opportunities (Hallinger et al, 1996:532). Thus, these factors in one way or another can influence the implementation of whole-school evaluation. Therefore, whole-school evaluation and its processes should be understood within the context of schools in which it is implemented or conducted. For example, a well-resourced school is more likely to implement whole-school evaluation better than the poorly resourced school. This is evident in South African schools where disparity between the former white schools and black schools still exist. Addressing contextual differences between schools has become one of the greatest challenges for school improvement (Van Wyk, 1999b:92). As a result some schools, particularly the previously disadvantaged schools struggle to implement some of the new policies, whereas others, particularly the previously advantaged schools have most of the needed resources to implement these new policies. Thus, previously advantaged schools remain advantaged while some previously disadvantaged schools still perform poorly. But the Department of Education (20GOb:6) is concerned that there is very little said about redressing die imbalances of the past in whole-school evaluation. Thus, schools that are well resourced and performing well will be heaped with praise, while poor schools may perform poorly. But Naicker and Waddy (2002:14) argue that whole-school evaluation does not disadvantage schools that are in the disadvantaged areas, as individual circumstances are taken into account.

According to Quinlan and Davidoff (1997:13), the context of each individual school (the external factors) impacts on the school in a way that will shape its unique character. Similarly, the particular culture of each school and the composition of staff, learners and parents will also shape its unique qualities (the internal factors). Likewise, McNamara et al (2002:205) maintain that the process of whole-school evaluation should take into account the unique contextual factors of each school, specifically those factors relating to the socio-economic background of learners, range of learner ability and level of resources. The Department of Education (2000b:7) agrees that when evaluation reports are shared with parents, the context in which the school functions must be explained. For example, Quinlan and Davidoff (1997:13) maintain that as a result of the previous uneven distribution of resources in South Africa schools vary enormously in both their material and human resources. Therefore, the context of an under-resourced rural school compared with a well-resourced urban school impacts vary differently on school life, including the morale

and motivation of educators, learners, parents and the community in general. This does not mean, though, that quality should be compromised. As the Department of Education (2000b:7) puts it, the quality of the school must be reported in relation to the quality of the entire system.

All schools share a particular identity determined by their core purpose of promoting teaching and learning for the purpose of achieving the aims of education (Davidoff & Lazarus, 2002:23). This does not, however, mean that the context within which each school operates is unimportant. As Eisner (1994:14) puts it, contexts within which educators work differ, learners differ, schools have different levels of resources and equally as important, educators differ with respect to their attitudes and backgrounds. Therefore, evaluators, particularly external evaluators should also take the contexts of schools into account when conducting their evaluations. There are, however, researchers who argue that this is not always the case. Often, evaluation criteria for whole-school evaluation are the same irrespective of where the school is situated (Naicker & Waddy. 2002:11). For example, Janseii (2001:560) maintains that in South Africa, a white urban school with middle-class parents, an established school infrastructure and an elite group of advantaged learners is measured on exactly the same basis as a black rural school serving the children of poor families in dilapidated buildings where a poor culture of teaching and learning exists. This puts advantaged schools in a better position while disadvantaged schools are further disadvantaged. As Jansen (2001:560) puts it, new policies, including whole-school evaluation increase the distance between rich and poor-schools because of the capacity of the former to manage, interpret and implement the policy in its favour. This is because these policies do not take the circumstances of individual schools into account.

Moreover, some policy analysts argue that in South Africa the Department of Education's policy documents are idealistic texts in an essentially top-down policy process which is not rooted in the realities of schools or responsive to conditions on the ground (Christie. 1999:282). As a result these policies are not effectively implemented at some schools, as they do not meet the needs, expectations and circumstances of these schools. Sack (2002:6) is of the opinion that whole-school evaluation cannot be successfully implemented at some quarters because the bureaucrats try to adopt a one-size-fits all approach (cf 2.6). According to Jansen (2001:560), whole-school evaluation need to be implemented by well-trained educators who should provide detailed school improvement plans to ensure that

schools progress beyond high levels of achievement. But most black and poor schools do not have educators who have such expertise As a result whole-school evaluation may yield unintended results/effects on a number of schools. As Christie (1999:282) puts it. for under-resourced communities and schools, the educational policies initiated in South Africa may produce the opposite effect, acting as extra-burdens rather than opportunities for improvement.

Cullingford (1997:120) is of the opinion that from whatever sources, from whatever country, the way to help schools improve rests on certain immutable principles. These include: the sense of the school as a center of change; the educator's feelings of responsibility or ownership over change: the close involvement of parents and the community; good clear systems of communication, sharing and support; the willingness to make changes happen over time: the encouragement of educator motivation and commitment; the support of educators through in-service education and trusting schools to develop their own policies and motivations without undue outside interference or detailed external control and inspection. Meanwhile, Heneveld (1994:3) lists a number of unsuccessful interventions that have been tried by other African countries to improve the quality of education. For example, changes to the number of years of schooling, to the language of instruction, to the management structure of the education system, to the availability of textbooks and in-service educator education, to the subjects taught and to school construction programmes. This shows that the effects of whole-school evaluation on schools cannot be predicted and its success and/or failure can depend on a number of factors. But Christie (1999:288) is of the opinion that the more knowledge that planners and policy-makers have of the actual conditions in schools, the more likely it is that their policies will be sensitive to them.

Cross-national studies of academic achievement in mathematics and science have generated much more policy and media attention than other comparative educational inquiries. The most prominent metaphors used in the American discussion include "the rising wave of mediocrity in the schools" and "a nation at risk" (U.S. National Commission on Excellence in Education 1984) following the Second International Mathematics Study. Following the Third International Mathematics and Science Study, we find "a splintered vision" (Schmidt et al. 1996), "a curriculum that is one mile wide and one inch deep," and the task effacing the consequences." (Schmidt, et. al., 1998). By way of contrast there is considerably less dramatic

imagery in discussions of the results of international surveys of reading literacy or civic education achievement, studies in which American students appear to fare better than in science and mathematics. The discrepancy in "what counts" has been seized upon by some critics as evidence of a conspiracy aimed at bashing education and teachers (Berliner and Biddle 1996; Bracey 1996; see also the debate between Baker and Westbury 1993). Others have lamented the fact that bad news sells, and thus bad news gets greater coverage (Berliner 1997). But such reactions may miss the big picture: economic development as a goal is increasingly seen as achieved through scientific and technical developments in schools and in the broader society (Drori, Meyer, Ramirez, and Schofer 2003). This phenomenon is evident in much development discourse rooted in both human capital and modernization theories. Consider for example the implicit causal chain, sketched in a National Research Council document:

> *Several implicit causal assumptions underlie public and political interest in crross-national studies of mathematics and science: (1) increased and improved curricular emphasis on mathematics and science in precollegiate education for all students will result in greater achievement for a greater number of students; (2) this will result in a greater number of better prepared students entering the natural sciences and engineering; and (3) this will in turn lead to a greater number of more productive scientists and engineers in the labor force. A final assumption is that more and better scientists and engineers will increase economic growth or productivity. Each of these premises has its critics and each should be more systematically evaluated." (Guilford, ed. 1993, p. 10)*

The high stakes metaphors associated with the international studies of science and mathematics achievement reflect this causal chain, minus the caveat that these are premises that need to be systematically evaluated. Both human capital and modernization theories presume that schools are settings within which pupils acquire skills, knowledge, and value dispositions, which subsequently make them more productive members of their societies. Problems of conceptualization and measurement notwithstanding, there is widespread confidence in the linkage between schooling and productivity at both individual and aggregate levels. Human capital and modernization theories are pervasive in their worldwide influence on development professionals and organizations (Chabbott 2003; World Bank 2002). To be sure, these theories generated counter theories that emphasized the sorting, credentialing, and reproduction functions of schooling and debunked its economic and modernization

effects (Collins 1971; see Bowles and Gintis 2002 for a recent reaffirmation of their 1974 reproduction correspondence theory).

There have also been efforts to go beyond "either-or" formulations and to argue instead that sociologists need to identify the conditions under which education leads to greater economic development (Fuller and Rubinson 1992; Rubinson and Browne 1994). These efforts have given rise to the general contention that schooling that is more attuned to the needs of the economy is more likely to foster its growth. This argument highlights the quality of schooling, not merely its quantity. But what kind of schooling constitutes high quality schooling? Without pretending to answer this broad question, many studies proceed as if schooling that contributes to individual productivity and national development is high quality schooling. Researchers have often assumed that more technical and scientific forms and outcomes of schooling would be more likely to meet the needs of the economy. These forms and outcomes thus serve as proxies for school quality, and in some studies, via a process of extrapolation, even labor force quality (Hanushek and Kimko, 2000). Thus, several empirical studies have focused on different aspects of scientization in curricular emphasis and enrollment levels and assessed their effects on economic growth. Benavot (1992b), for example, provides some evidence suggesting that a greater emphasis on science in the primary school curriculum positively influences economic development. This study furthermore finds a positive interaction effect between science curricular emphasis and secondary enrollment levels. That is, the impact of more scientific emphasis in the curricula may be greater in countries with more expanded secondary school enrollments. Another set of studies suggested that the expansion of technical tracks in secondary schooling, in both France and Germany, positively affected economic development, while the expansion of classical curricular tracks failed to do so (Gamier and Hage 1990; Hage, Gamier, and Fuller 1988). The authors of these studies argue that the different economic impacts of expanded schooling are due to differences in the emphasis and quality of different school systems.

Shifting to higher education, other cross-national studies examine the economic impact of greater enrollments in the fields of science and engineering and find positive effects (Schofer, Ramirez, and Meyer 2000; Ramirez and Lee 1995). The established generalization across many studies is that higher educational enrollment expansion has weak or even negative effects on economic growth (see Benavot,

1992b; but see Hannum and Buchmann 2003 for evidence of a positive effect). But this finding may mask the positive effect of science and engineering enrollments by confounding it with the negative impact of enrollments in the non-science and engineering sector.

Taken as a whole these studies support the idea that science-oriented schooling has greater economic payoffs than schooling in other areas. This is consistent with the implicit causal chain that underlies the debates around achievement in science and mathematics. But several studies raise evidentiary questions. Walters and O'Donnell (1990) use time series data to analyze the influence of science and engineering graduates on economic growth in the United States and fail to find a positive effect. Schofer et al. (2000) show that some scientific output indicators such as scientific publications either have no effect on economic growth, or actually have a negative effect (for similar negative effects, see also Shenhav and Kamens 1991). Despite such studies, conventional policy discourses treat all these indicators of scientific development as important mechanisms producing economic growth (see Drori et al. 2003).

Only one study directly gauges the impact of academic achievement in mathematics and science on economic growth and that study finds a positive effect (Hanushek and Kimko 2000). These researchers do not attempt to empirically ascertain the mechanisms or intervening variables through which greater levels of academic achievement lead to greater rates of economic growth, but generally assume that human capital processes of the sort outlined in Figure 1 are involved. The focus of this study on achievement, beyond simple enrollment levels, is indicative of the growing interest in school quality and its consequences.

We build on the literatures discussed above, using nation-states as units of analysis, to ascertain whether aggregate levels of student achievement in mathematics and science positively influence national economic growth. We employ analysis models and measures of the independent and dependent variables similar to those utilized in Hanushek and Kimko (2000), and in Schofer, et al. (2000). We examine 1970-1990 and 1980-2000 periods to see if the relationships between achievement levels and economic growth are stable over these two periods. We undertake analyses with and without outliers, to see if the relationship is case sensitive. We also estimate the interaction effects of achievement and enrollment on economic growth, since both theory and research (Benavot 1992) would lead one to expect a positive interaction

effect: variations in average student achievement should have stronger effects in countries with more students enrolled. Lastly, we gauge the effects of achievement levels on four different measures of scientific development that could serve as intervening variables between achievement and economic growth.

Before we describe our data and the methods with which we propose to analyze the data, the dramatic portrait of achievement and development presupposes a world of enormous variation with respect to curriculum, teaching, and achievement. But cross-national investigations actually show considerably less variation with respect to curriculum, teaching, and achievement than expected in policy discourse (Baker and Latendre 2005; see also Meyer, Kamens, Benavot, and Cha 1992). This is especially the case when the weakest educational systems in the world do not enter into analyses due to inadequate data. So, from a research perspective one should not expect robust achievement effects on economic growth. But the policy discourse reviewed earlier often presupposes robust effects and at least one empirical study concludes that there is a clear achievement on economic growth effect (Hanushek and Kimko 2000). Our goal thus is to ascertain whether the link between collective national achievement and economic growth is stable over time and across cases

According to National Policy on Education (2004), education in Nigeria is hinged on five national objectives defined and articulate in our Secondary Development Plan (1973) which are the building of:

(i)   A free and democratic society;

(ii)   Just and egalitarian society;

(iii)   A united, strong and self-reliant nation;

(iv)   A great, and dynamic economy and

(v)   A land of bright and full opportunities.

A philosophy of education, which arises the value which quality education must achieve. These values are fully spelled out in the National Policy of Education. It is because education is the most important instrument of change that the issue of standards in education and the pursuit of quality control in achieving stated educational aims has become very vital. It is because of the concern that the concept of minimum standard featured in the Nigeria education scene with decree 16 of 1985 was revisited in decree 49 of 1988 and decree of 1993.

However, it must be noted that it is decree 16 that gives legal backing to the achievement of uniformity in education system and standard or articulated National Policy on Education (2004).

Concept of Quality

Quality is the totality of features and characters of a product or service that bears on its ability to satisfy stated implied needs. Quality is also seen as what makes a thing what it should be in nature, character and grade of goodness (Chamber, 1999).

Total quality is also defined by Chamber (1999) as a work ethos according to which continuous efforts are made to perform all aspects to one's work better. Total quality is an apparent that no single individual in an organization, can attain it. It involves everybody in the organization (top officials, junior staff, clerks, gate keepers, etc. in education institution, total quality involves both teaching and non-teaching staff, the principal, vice-principal and students; it requires total commitment and uncompromising pursuit of excellence, performance, continuous improvement and quality.

In education industry, practitioners do not wait till the end of production before remedial measures are taken. Hence, the importance of periodic assessment and evaluations daily, weekly, monthly, termly and seasonally. It must be pointed out at this junction that quality control is predicted on the maintenance of minimum standards as regards the provision of school building, other infrastructures, equipment, curriculum, class-size, student-teachers ratio, quality and quantity of teachers etc. Quality control is not teacher centred, but it involves the totality of teaching-learning environment and processes.

Control of Quantity

Under our existing Constitution (1999), the Federal, State and Local Governments share the primary responsibility for providing quality education. However, the prescription of that minimum standard which must rest squarely on the Federal Government, Courtesy Decree 16 of 1985 and its consequent amendments. It is pertinent to know that the control of quality in education in Nigeria is as old as the introduction of formal education in the country by church missionary bodies. The 1882 and 1887 education ordinances made provision for ensuring quality and quality control in education. These ordinances governed the establishment of schools,

organization, financial administration, staffing, discipline, provision of physical infrastructure and examination as well as frequent inspection of schools by school managers and supervisors. These made it possible for attainment of standard and maintenance of quality standards in education. The factors responsible for the falling standard in education with many other cogent factors are inadequate finance, inadequate time for planning, student population, explain, shortage of qualified teachers, paper qualification emphasis, consumer mentality, strikes and political instability.

The agent of quality control in Nigeria is the Federal Ministry of Education which is saddled with the responsibility of maintaining minimum standard in the country. In order to do this, government set up the National Council of Education (NCE), Joint Consultative Committee on Education (JCCE), and other relevant Parastatals, such as National University Commission (NUC), National Board for Technical Education (NBTE), National Commission for Colleges of Education (NCCE), Joint Admission Matriculation Board (Jamb) and so on. However, the main instrument of measuring quality education is supervision and inspection of education the implement involved in quality control in Secondary School level and its maintenance can be carried out at two levels:

(a)   Internal Quality Control, which is expected to be carried out by Sectional heads, principals Vice-Principals. All these are expected to offer academic leadership within the school.

(b)   External Quality Control, which is carried out by Staff of the Local Government Education Authority designated as monitoring officers and inspectors from the zonal education offices.

Adeyinka (1998) advices educational manager to incorporate and build into the system within which they manage, self-regulating and effective control mechanism and measure so that the purpose of the system could be achieved.

Whether in a business organization or the school system, patterns and techniques of control take different forms but all are directed towards the achievement of a set objective. The school quality control measure strategies can take the following procedures:

- Standard and goal settings
- Measure of performance (or performance evaluation)

- Decision to change standard and goals

2.2   Appraisal of Literature

The literature review affords us the opportunity of knowing what areas have been covered and what remains to be covered. The review of the literature in this study was based on outlining the literature into different sub-headings with the aim of providing a discussion based on issues and studies related to managerial control of resource control variables (material resource, financial resource, human resource), and infrastructural facilities control (transportation and accommodation facilities).

The literature on material resource showed that a resource can be categorised as material, financial, human, transportation and accommodation. Some of the studies confirmed that a positive relationship exists between material resource control and students academic achievement. There are many studies on material resource application that established that the resources which should normally go along with the colleges of education programme should be adequate and the quantity that is even available should be well applied (Cobum, 1998; Council on Higher Education, 2006; Cluispeel, 1996). This is in line with the previous findings of researchers and scholars like Ajani (1987), Oni (1995) and Aghenta (1999) who found that the quality of education received by the learners in school, to a very extent is determined by the level of availability of the material resources and of course the overall atmosphere in which learning activity takes place.

In addition, the literature contested that an important input that comes along with all other inputs is finance, which is categorised as capital and recurrent expenditures. Studies on strategy for generating finance in some countries of the world abound in the literatures (Babalola, 2000; Babalola, 2003; Bronchi, 2003; Burton and Murugan, 2004). Also, Federal Republic of Nigeria (FRN) (2004) recognises the fact that education is an expensive social service that requires adequate, financial provision from all tiers of governments for a successful implementation of educational programmes.

The literature reviewed on human resource variable concluded that it comprises of students, teachers, administrative staff and supervisory staff from the Ministry of Education.

The reviewed literatures on transportation facility variable asserted that it is one of the resources that can be used to achieve educational goals and objectives. They confirmed that effective utilization of the resources could contribute to academic achievement (Classen, 1998; Classen, 1999; Christie, 1999; Christie, 2004).

The literature on accommodation concluded that unattractive school buildings, crowded classrooms, non-availability of playing ground and surroundings that have no aesthetic beauty could contribute to poor academic performance. Also, they asserted that particular attention must be paid to their schools' state of repair and how well these are organised and used in the interests of the learners (Christie, 1997; Department of Education, 2001:11; Davidoft and Lazarus, 2002:128; Pretorious, 1998 and Woodhall, 2004).

Most of the literature reviewed on the managerial control of resource and students' academic achievement favoured the assertion that students' performance in academic work and behaviour are manifestation of the problems associated with the staffing of the schools, inadequate facilities and funding. Also, it was discovered that the situation is aggravated by inefficient and ineffective planning, organisation and management of the available human and material resources. The literature confirmed that the public has lost confidence in the education system because it is turning out half-baked products (Davidoff and Lazarus, 1997; Cunningham, 2000; Ogunleye, 2000; Imogie, 2002; Davidoff and Lazarus, 2002).

The review asserted that the material resources which should go along with the colleges of education programme should be adequate and the quantity that is available should be well managed with a view to improving educational system. The literature reviewed on financial resource posits that it is necessary for the school system as an institution to strive to seek strategies for generating finance. On the reviewed literature on human resource variable, it emphasised that the level of teachers' knowledge of subjects is crucial and has been shown to be a good predictor of students' academic achievement. Also, pupil-teacher ratios should be reasonable to improve students' academic achievement. Conclusively, it emphasised that in order to achieve students' academic achievement, effort must be made at changing the financial resource allocation, quality and proportion of input as well as managing the available inputs more intensively and greater usage of the school buildings and other physical facilities in order to improve the students' academic achievement (Darling-Hammond, 1990; Dagley and Orso, 1991).

Management Theory

Strategic management is the process and approach of specifying an organisations objective, developing policies and plans to achieve and attain these objectives and allocating resources so as to implement the policies and plans. It can be seen as a combination of strategy formulation, implementation and evaluation (David, 2005; Haim Hilman Abdullahi, 2005; Mohd Khairuddin, Hashim, 2005; Zainal Abidin Mohammed, 2005).

There are some theories which provide useful basis for effective strategic management such theories stem mainly from the systems perspective, contingency approach and information technology approach to management. According to David (2005) and Mohd Khairuddin Hashim (2005) among the common strategic management theories that are applicable to this study include the profit maximizing and competence-based theory, the resource-based theory, the survival-based theory, the human resource-based theory, the agency theory and the contingency theory. The management theory evolution spanning from the period 1900 to 2000.

(i)   The profit-maximising and competitive-based theory. The theory was proposed by porter in 1981. The theory was based on the notion that business organisation mean objectives is to maximise long term profit and developing sustainable competitive advantage over competitive rivals in the external market place.

(ii) The resource-based theory which was propounded by Barney in 1995, stems from the principle that the source of firms competitive advantage lies in their internal resource as opposed to their positioning in external environment. The resource-based view of the firm predicts that certain types of resources owned and controlled by time firms have the potential and promise to generate competitive advantage and eventually superior firm performance (Ainuddin, et al, 2007).

(iii) The survival-based theory which was propounded by Henanrt (1991) centers on the concept that organisation need to continuously adapt to it competitive environment in order to survive. This differs to the human resource-based theory propounded by Redman and Wilkinson in 2001 emphasises the importance of the human element in the strategy development organisations.

(iv) The agency theory propounded by Leiblein in 2003 stresses the underlying important relationship between the shareholders or owners and the agents or managers in ensuring the success of the organisations.

(v) The contingency theory propounded by storey in 1995 draws the idea that there is no one or single best way to approach to manage organisation. Organisations should then develop managerial strategy based on the situation and condition they are experiencing.

The above theories have much relevance to the study in that they can be applied by the college of education provosts and education administers during the process of strategy formulation, implementation and evaluation of the students academic achievement to assist them in making strategic and guided managerial decisions. These strategies management theories can best be depicted as per Figure 2.1.
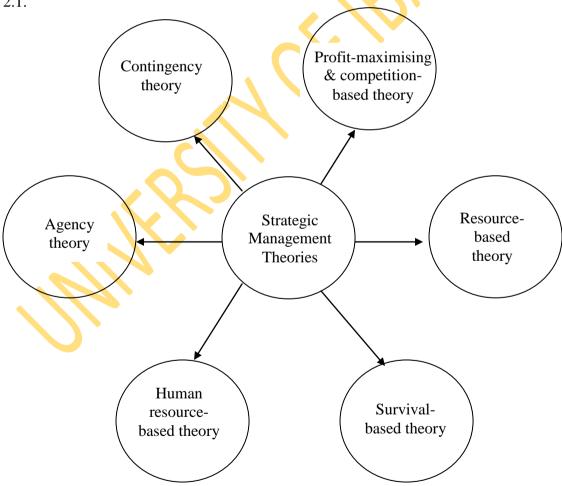

Fig. 2.1: Management Theories

Theoretical Framework

The human capital theory was used to illustrate this study.

Human capital theory was propounded by Schultz in 1971.

The theory emphasised that formal education is highly instrumental and even necessary to improve the production capacity of a population. The human capital theory rests on the premises that an educated population is a productive population.

Human capital theory explains how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capability which is a product of innate abilities and investment in human beings.
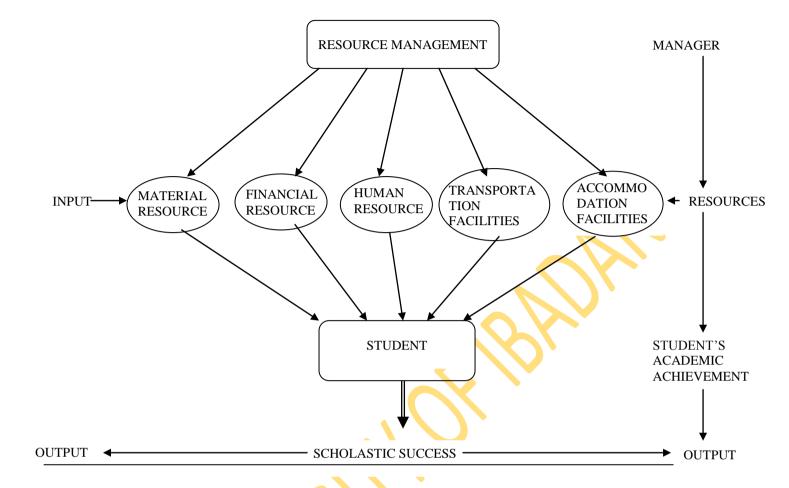
This theory is relevant to the study because investments in education such as material, financial, human, transportation and accommodation resources increase future productivity capacity of students at the expense of current consumption. An instruction that demands logical or analytical reasoning or provides technical and specialised knowledge increases the marginal productivity of workers in high skill or professional positions.

Further, the greater the stock of human capital in a society, the greater the increase in national productivity and economic growth.

However, the main problem associated with the belief that education is good for economic growth and development according to Babalola (2003) concerns how to maintain an equilibrium position, that is, where there will be no evidence of either shortage or surplus supply of educated people. A shortage might limit growth, while excess supply might create unemployment and thus limit economic growth and development.

If human capital theorists are correct in arguing that education is the primary cause of higher earnings, then it obviously makes sense to provide more education to low-income groups of the society to reduce poverty and the degree of income inequality.

However, to contribute significantly to economic growth and development, education must be of high quality and also meet the skill – demand needs of the economy. Also, government in its employment policies should lay more emphasis on specialisation and competence rather than paper qualification and ill-gotten certificates.

RESOURCE MANAGEMENT

MANAGER

INPUT

MATERIAL RESOURCE

FINANCIAL RESOURCE

HUMAN RESOURCE

TRANSPORTATION FACILITIES

ACCOMMODATION FACILITIES

RESOURCES

STUDENT

STUDENT'S ACADEMIC ACHIEVEMENT

OUTPUT ◄─────── SCHOLASTIC SUCCESS ───────► OUTPUT

FIG. 2.2: A MODIFIED VERSION OF HUMAN CAPITAL THEORY

Source: Palacious, M. (2004) Investing in Human Capital.

Figure 2.1 shows the Human Capital model to be applied in the colleges of education in Nigeria to achieve students' academic achievement.

The college management will provide the INPUTS such as material resource, financial, human, transportation and accommodation resources that should be well processed and controlled by them for the use of the students.

This will lead to OUTPUT as the student's performance. The final result is academic achievement of the students.

Human capital theory model shows interaction of the various elements in a typical school. It is possible to examine the relevant dimensions in the model while holding other variables constant. Thus, by ignoring certain variables in the system, it is possible to assess the interrelationships among the variables in order to sharpen the focus of the current study, especially in relation to the research questions and hypotheses earlier raised in the study.

In view of this, the modification made in this model was to hold constant such items as material, financial, human, transportation and accommodation resources as well as other non-relevant variables to this present study since the major concern of the study was to examine the relationship between managerial control of resources and students' academic achievement. The modified model is therefore represented in Figure 2.1.

The model (Figure 2.1) describes the relationship of material resources, financial resource, human resource, transportation facilities and accommodation facilities variables (independent variables) and students' academic achievement (dependent variable) of colleges of education. The inputs are the resources that are utilised to produce a given quantity of output in the college system. The resource inputs are usually assigned a certain price value. If the resources are efficiently managed and controlled, the cost of producing such outputs (students' academic achievement) will be minimal. If on the other hand, the resources (material, financial, human, transportation and accommodation) are inefficiently managed and controlled, it will incur a higher cost of production to the school system that is, negative students' academic achievement. Consequently, this could limit the realisation of the overall educational objectives. This model can be used by school management, educational, planner, and policy makers to determine how managerial control of resource ability of the school manager can enhance students' academic achievement.

CHAPTER THREE
METHODOLOGY

3.1   Research Design

Descriptive research design of the ex-post facto type was adopted for the study. This is because the researcher had no control over the variables of interest and no manipulation was effected as they were already in existence. According to Ogunleye (2000) and Babalola (2000) the descriptive research design is useful for describing conditions as they exist. The descriptive research design usually adopts correlation approach. This design was used by the researcher to obtain relevant data on the college materials, financial, human, transportation, accommodation resource controls and students' academic achievement data as well as other variables for the purpose of describing and interpreting existing conditions in the sampled colleges of education.

3.2   Population of the Study

The population for the study consisted of all the six pioneer states-owned colleges of education in south western Nigeria as at the time of the study. The subjects of the population include the 200 level students of all the six pioneer state colleges of education, where 100 were selected from each of the colleges making 600 students in all. Thirty-four academic staff, 34 non-academic staff (junior) and 34 non-academic staff (senior) were selected from each of the six colleges, making 612. In all, 1,212 respondents participated in the study.

3.3   Sample and Sampling Technique

A total of six pioneers state-owned Colleges of Education spread across the five states (except Ondo State that has Federal College of Education) in Southwestern Nigeria were selected for the study. Each College of Education was divided into 3 strata of non-academic (junior), non-academic (senior) and academic. From each stratum, a random sampling was used to select 34 respondents in each of the six Colleges of Education. This gives us a total of 204 respondents from each stratum from all states. Therefore, the total number of staff used in the study is 612. Simple random sampling was further used to select students from each of the state-owned Colleges of Education to give a total of 600 students. Table 3.1 shows the details of the sampling procedure.

Table 3.1: Samples used for the Study

S/N	NAME OF COLLEGE OF EDUCATION	OWNER'S STATE	ACADEMIC STAFF	NON-ACADEMIC STAFF (JUNIOR)	NON-ACADEMIC STAFF (SENIOR)	STUDENTS
1	Venerable Emmanuel Alayande College of Education, Oyo	Oyo State	34	34	34	100
2	Tai Solarin College of Education, Ijebu Ode	Ogun State	34	34	34	100
3	Osun State College of Education, Ila Orangun	Osun State	34	34	34	100
4	Ekiti State College of Education, Ikere-Ekiti.	Ekiti State	34	34	34	100
5	College of Education, Ilesa	Osun State	34	34	34	100
6	Adeniran Ogunsanya College of Education, Ijanikin, Lagos.	Lagos State	34	34	34	100
	Total		204	204	204	600

Source: Field Survey, 2008.

From Table 3.1, Oyo State has one college, Ogun State has one, Osun State has two, Ekiti State has one, and Lagos State has one college of education.

3.4 Research Instruments

Seven inventory formats were developed by the researcher himself to collect existing college records on materials, financial and human resource control, transportation and accommodation facilities control. Also, formats were developed on students academic achievement plus students perception of their academic achievement. Instrument numbers 1 to 5 and 7 have two sections. Section A provides demographic information about the name of the college, the department and location of the college, while section B consists of ten items each based on the variable in the question. Only instrument number six consists of three sections, to section A provides demographic information as others. Section B has ten items based on the students' academic achievement while section C was designed for the response of the non-academic staff working in the examination and records section of the selected colleges of education. The instruments are presented in Table 3.2.

Table 3.2:   **The List of Instruments used in the Study**

S/N	Instruments
1.	Material Control of Resource Questionnaire (MCRQ).
2.	Financial Control of Resource Questionnaire (FCRQ).
3.	Human Control of Resource Questionnaire (HCRQ).
4.	Transportation Facilities Control Questionnaire (TFCQ)
5.	Accommodation Facilities Control Questionnaire (AFCQ)
6.	Academic Achievement Questionnaire (AAQ)
7.	Students Perception on the Academic achievement Questionnaire (SPAACQ)

Source: Field Survey, 2008

3.5   Validation of Instruments

To ensure that the instruments measure what they were designed to measure the face and content of the instrument were given to the researcher's supervisor for his input and necessary improvement. Other experts in the researchers' area of study within and outside the Department of Educational Management were also given the instruments for necessary improvement. They all made necessary modifications before the instruments were pilot tested. Data collected through pilot testing were analysed using reliability analysis. The construct validity of the instruments were established using corrected item-total correlation coefficients.

For accommodation facility questionnaire, the coefficients ranged between 0.37 and 0.63. For financial questionnaire, the coefficient ranged between 0.27 and 0.76. For human resource questionnaire, the coefficient ranged between 0.35 and 0.56. For material resource questionnaire, the coefficient ranged between 0.53 and 0.71. For transport facility questionnaire, the coefficient ranged between 0.51 and 0.75.

3.6   Reliability of Instrument

Since the existing Colleges of Education were used in the study, reliability test was not conducted because of the integrity of the data to produce similar results whenever manipulated.

Table 3.3:   The Alpha Reliability Coefficient of each Construct Factor

Variable	Instruments	Alpha Reliability Coefficient
1	MCRQ	A 0.84
2	FCRQ	A 0.75
3	HCRQ	A 0.96
4	TFCQ	A 0.86
5	ACRQ	A 0.94
6	SPAAQ	A 0.93
7	AAQ	A 0.81

Variable 1 (MCR) 0.84, Variable 2 (FCR) 0.75, Variable 3 (HCR) 0.96, Variable 4 (TFC) 0.86 and Variable 5 (ACR) 0.94. This indicated that each of the constructs were reliable to test the specific construct, they were meant to test (SPAAQ) = 0.93 and (AAQ) = 0.81.

3.7   Administration of Research Instruments

The seven research instruments were administered to the selected 200 level students in the colleges COVERED, selected academic staff members, selected heads of departments, non-academic staff members (junior) and selected non-academic staff (senior) from the six colleges of education. They all provided information needed from the existing colleges' records. Six field assistants were hired and trained by the researcher to assist him in the distribution and collection of the instruments from the respective colleges. A total of 1,212 were distributed to the colleges out of which 1,202 questionnaires were fully filled and retrieved by the researcher and his field assistants giving a return rate of 99.2 per cent.

3.8   Method of Data Analysis

The data collected for the study were analysed using descriptive and inferential statistics like t-test, Pearson's Product Moment Correlation (PPMC), Multiple Regression Analysis, Analysis of Variance (ANOVA) and Simple percentage. Seven research questions were answered and descriptive statistics was used to calculate the weighted average of the respondents while seven hypotheses were tested using Pearson's Product Moment Correlation (PPMC) for hypotheses 1, 2, 3, 4 and 5 to determine the level of relationship and the level of significance among the variables. Multiple regression analysis was used for hypothesis 6 to check the effect of the variables on each other and ANOVA was used for hypothesis 7 to determine the level of relationship and level of significance among the seven variables under study.

CHAPTER FOUR

RESULTS

The major concern of this study is to provide a vital explanation of students' academic achievement in colleges of education. Therefore, this chapter presents the results and discourse of the data analysd. The presentations and discussions are organised into two sections. The first section answered the seven research questions in the study while the second discusses the empirical results obtained from the seven hypotheses tested in the study.

Section One

Descriptive Analysis

Table 4.1: **Descriptive Statistics of the Level of Academic Achievement in the Selected Colleges of Education**

Name of the college		Material Resource Control	Financial Resource Control	Human Resource Control	Transportation Resource Control	Accommodation Resource Control	Academic achievement	Remark
Emmanuel Alayande Col. Of Ed.	Mean	23.80	25.60	24.80	26.40	22.40	50.96	Average
	N	100	100	100	100	100	100	
	Std, Deviation	.000	.000	.000	.000	.000	2.95	
TSCE Ijebu Ode	Mean	35.80	34.60	25 40	34.80	34.20	52.33	Average
	N	100	100	'00	100	100	100	
	Std, Deviation	.000	.000	.000	.000	.000	2.95	
Adeniran Ogunsanya Col of Ed.	Mean	26.40	27.2	24.2	29.20	26.80	46.56	Below Average
	N	100	100	100	100	100	100	
	Std, Deviation	.000	.000	.000	.000	.000	2.82	
Osun State Col. Of Ed.	Mean	26.25	31.20	32.50	30.00	29.40	52.40	Average
	N	100	100	100	100	100	100	
	Std, Deviation	.000	.000	.000	.000	.000	4.78	
Ekiti State College of Education	Mean	28.17	32.80	30.50	30.20	29.40	50.09	Average
	N	100	100	100	100	100	100	
	Std, Deviation	.000	.000	.000	.000	.000	2.35	
College of Ed. Ilesa	Mean	35.00	36.20	33.10	35.20	36.20	57.52	Average
	N	100	100	100	100	100	100	
	Std, Deviation	.000	.000	.000	.000	.000	3.58	
Total	Mean	29.24	31.27	28.42	30.97	30.02	51.64	Average
	N	600	600	600	600	600	100	
	Std, Deviation	4.55	3.80	3.72	3.12	4.59	4.66	

Source: Establishment Department of the selected Colleges

Key %

A = 70+ - Very Good; B = 60-69 – Good; C = 50-59 – Average;

D = 45-49 – Below Average

Key for Variables

MCR – 96.50%

FCR = 96.20%

HCR = 99.20%

TCF = 94.80%

ACR = 83.70%

The assumed average is 50-59%, the calculated average of academic achievement for Emmanuel Alayande College of Education, Oyo is 50.96% ($\bar{x}$ =50.96). This shows that the academic achievement of the college is on the average because 50.96% is on scale "C", between 50 and 59%. Also, Table 4.1 shows that the calculated average of academic achievement for Tai Solarin College of Education, Omu Ijebu is 52.33 ($\bar{x}$ = 52.33). This shows that the academic achievement of the college is on the average. Further, the calculated average of academic achievement for Adeniran Ogunsanya College of Education, Ijanikin, Lagos is 46.56% ($\bar{x}$ =46.56). This shows that the academic achievement of the college is below average because 46.56% is on the grade "D", between 45 and 49%.

Osun State College of Education, Ila-Orangun calculated academic achievement is 52.40% ($\bar{x}$ =52.40). This shows that the academic achievement of the college is on the average. The calculated academic achievement of the Ekiti State College of Education, Ikere Ekiti is 50.09% ($\bar{x}$ = 50.09). This shows that the academic achievement of the college is on the average. While the calculated academic achievement for the College of Education, Ilesa is 57.52% ($\bar{x}$ = 57.52). This shows that the academic achievement of the college is on the average.

On the whole, the mean scores for the six selected colleges of education ranges from 46.56% to 57.52%, expressed in percentages ($\bar{x}$ = 51.64). This value shows that the academic achievement of the selected colleges were on the average. Also, on the grading scale, the performance fell on "C" grade, between 50 and 59. This is not good enough.

Research Question 1

What is the level of materials resource control as indicated by maintenance department?

Table 4.2:   Status of Materials Resource Control in the Institutions

N= 600

S/N		SA	A	D	SD	Mean	Sd. Dev.
1	Students are not allowed to borrow more than two textbooks at any given time for the convenience of other students.	579 (96.5%)	19 (3.2%)	2 (0.3%)	0 0%	3.96	.21
2	Lecture theatres are under lock and key at the end of the day's lectures to prevent abuse.	575 (95.8%)	20 (3.3%)	5 (0.8%)	0 0%	3.95	.25
3	Any student that fails to return textbooks borrowed within two weeks will be penalised.	565 (94.2%)	25 (4.2%)	10 (1.7%)	0 0%	3.92	.32
4	Electricity is switched off by the authority whenever it is not safe for use.	520 (86.7%)	79 (13.2%)	1 (0.2%)	0 0%	3.87	.35
5	Office telephone services provided for the lecturers are to be used for official business only.	534 (89.0%)	45 (7.59)	21 (3.5%)	0 0%	3.85	.44
6	The inventory of the lecturers' office furniture are taken by the maintenance department.	484 (50.7%)	113 (18.8%)	1 (0.2%)	2 (0.3%)	3.80	.43
7	The college authority carries out regular auditing of the drugs supplied to the health centres.	501 (83.5%)	59 (9.8%)	40 (6.7%)	0 0%	3.77	.56
8	The authority concerned stops the supply of water to the college community whenever a pipe bursts.	360 (60.0%	235 (39.2%)	5 (0.8%)	0 0%	3.59	.51
9	There are laid down rules for the usage of the lecture theatres by members of the public.	389 (64.8%)	0%	211 (35.2%)	0 0%	3.30	.96
10	College laboratory attendants are employed to take care of the laboratory equipment daily.	175 (29.2%)	320 (50.0%	105 (17.5)	20 (3.3%)	3.05	.77
	Assumed Average = 2.5 Calculated Weighted Average = 3.31 Remark = High						

Source: Fieldwork Result carried out by the researcher, 2008.

SA = 4, A = 3, D = 2, SD = 1

The assumed average = 2.5, the calculated average is 3.31. This shows that managerial resource control (materials) is high because 3.31 > 2.5.

Table 4.2 shows that students are not allowed to borrow more than two textbooks at any given time for the convenience of other students ($\bar{x}$ =3.96, standard deviation = .21). Also, lecture theatres are always under lock and key at the end of the day's lectures to prevent abuse ($\bar{x}$ =3.95, standard deviation = .25). Any student that fails to return borrowed textbooks within two weeks will be penalised ($\bar{x}$ =3.92, standard deviation = .32) and electricity is switched off by the authority whenever it is not safe for use ($\bar{x}$ =3.87, standard deviation = .35). The Table further shows that office telephone services provided for the lecturers are to be used for official business only ($\bar{x}$ =3.85, Standard deviation = .44). The inventory of the lecturers office furniture are taken by the maintenance department ($\bar{x}$ =3.80, standard deviation = .43) and the college authority carries out regular auditing of the drugs supplied to the health centres ($\bar{x}$ =3.77, standard deviation = .56). Further, the authority concerned stops the supply of water to the college community whenever a pipe bursts ($\bar{x}$ =3.59, standard deviation = .51) and there are laid down rules for the usage of the lecture theatres by members of the public ($\bar{x}$ =3.30, standard deviation = .96). Finally, college laboratory attendance is employed to take care of the laboratory ($\bar{x}$ =3.05, standard deviation = .77).

These show that all the items listed yielded high mean score as they are higher than 2.5 border line between agreement and disagreement lines of the scale. On the whole, the weighted average of 3.31 shows that the level of materials resources control is high in the selected colleges of education.

Research Question 2

What is the level of financial control of resource as indicated by the accounts and bursary departments?

Table 4.3:   Level of Financial Resource Control in the Institutions

N= 600

S/N	Statements	SA	A	D	SD	Means	Std. Dev.
1	The colleges' authorities use cheques to pay workers salaries.	595 (99.2%)	3 (0.5%)	2 (0.3%)	0 0%	3.99	.14
2	All payment receipts to be used by all departments are to be supplied by the bursary department only.	587 (97.8%)	10 (1.7%)	3 (0.5%)	0 0%	3.94	.25
3	Capital project for departments can only be executed after the approval of the college bursary department.	593 (98.8%)	5 (0.8%)	2 (0.3%)	0 0%	3.88	.35
4	All school fees should be paid to the college bursary at all times.	529 (88.2%)	70 (11.7%)	1 (0.2%)	0 0%	3.83	.38
5	All payment receipts issued out to the departments have to be retired to the bursary on or before the end of each session.	591 (98.5%)	7 (1.2%)	2 (0.3%)	0 0%	3.83	.39
6	Any official found guilty of mis-appropriating or embezzlement of college fund will be prosecuted.	480 (80.0%)	118 (19.7%)	2 (0.3%)	0 0%	3.83	.38
7	The colleges' authorities scrutinises the budgets prepared by the departments before approval.	0%	6 (1.0%)	92 (15.3%)	502 (83.7%)	3.81	.39
8	Claim form vouchers are filled to record any expense made for official assignments.	439 (73.2%)	141 (23.5%)	20 (3.30%)	0 0%	3.30	/.53
9	Auditing of the departments' account is carried out regularly by the college audit department.	440 (`73.3%)	100 (16.7%)	60 (10.0%)	0 0%	3.63	.66
10	Tenders have to be advertised in newspapers, radio, television before any contract can be awarded.	495 (82.5%)	100 (16.7%)	5 (0.8%)	0 0%	3.62	.50
	Assumed average = 2.5, Calculated Weighted Average = 3.81, Remark = High						

Source: Fieldwork result carried out by the researcher, 2008.

SA = 4, A = 3, D = 2, SD = 1

The assumed average = 2.5, the calculated average is 3.81. This shows that managerial resource control (financial) is high because 3.81 > 2.5.

From Table 4.3, it is seen that the colleges authorities use cheques to pay workers salaries ($\bar{x}$ =3.99, Std devn = .14) while all payment receipts to be used by all departments are to be supplied by the bursary department only ($\bar{x}$ =3.94, std devn = .25). Also, capital project for departments can only be executed after the approval of the college bursary department ($\bar{x}$ =3.88, Std devn = .35) and all school fees should be paid to the college bursary at all times ($\bar{x}$ =3.83, Std devn = .38). The Table further shows that all payment receipts issued out to the departments have to be retired to the bursary on or before the end of each session ($\bar{x}$ =3.83, std devn = .39) and any official found guilty of misappropriating or embezzlement college fund will be prosecuted ($\bar{x}$ =3.83, Std devn = .38). Results on the Table also reveal that the colleges' authorities scrutinises the budgets prepared by the departments before approval ($\bar{x}$ =3.81, Std devn = .39) and claim form vouchers are filled to record any expense made for official assignments ($\bar{x}$ =3.70, Std devn = .53). Auditing of departments' account is carried out regularly by the college audit department ($\bar{x}$ =3.70, Std devn = .66) and tenders have to be advertised in newspapers, on radio, television before any contract can be awarded ($\bar{x}$ =3.62, Std devn = .50).

All the mean scores are high and the weighted average of 3.81 indicates. That the level of financial resources is high.

Research Question 3

What is the level of human resource control as indicated by the selected heads of departments and establishment departments?

Table 4.4:   Level of Human Resource Control in the Colleges

N = 600

S/N	Statements	SA	A	D	SD	Means	Std. Dev.
1	Lecturers who copy another person's work are always sanctioned.	595 (99.2%)	4 (0.7%)	1 (0.2%)	0 0%	3.77	.46
2	Supervisors are employed to oversee the daily schedule of the cleaners.	419 (69.8%)	176 (29.3%)	5 (0.8%)	0 0%	3.73	.46
3	Lecturers have to attend promotion examination before they can be eligible for promotion in the department.	319 (53.2%)	274 (45.7%)	7 (1.2%)	0 0%	3.45	.55
4	Lecturers involved in examination malpractices will be prosecuted and dismissed.	580 (96.7%)	8 (1.3%)	12 (2.0%)	0 0%	3.35	.48
5	Lecturers who fail to publish papers in both local and foreign journals may be denied promotion.	590 (98.5%)	8 (1.3%)	2 (0.3%)	0 0%	3.26	.45
6	Lecturers are allowed to go on annual leave only if vacancies exist.	523 (87.2%)	70 (11.7%)	7 (1.2%)	0 0%	3.16	.39
7	Lecturers found guilty of collecting unauthorised levies from students will be seriously punished.	375 (62.5%)	220 (36.7%)	5 (0.8%)	0 0%	3.13	.43
8	Disciplinary committee is constituted to curb the immoral behaviour of lecturers in the departments.	460 (76.7%)	120 (20.0%)	20 (3.3%)	0 0%	3.12	.45
9	Lecturers are made to sign course attendance register in the department.	86 (14.3%)	45 (7.5%)	409 (68.2%)	60 (10.0%)	3.06	.40
10	Lecturers involved in commercialising the departments' properties for their personal use will be punished.	489 (81.5%)	110 (18.3%)	1 (0.2%)	0 0%	2.96	.38
	Assumed = 2.5, Weighted Average = 3.39, Remark = High						

Source: Fieldwork result carried out by the researcher, 2008.

SA = 4, A = 3, D = 2, SD = 1

The assumed average = 2.5, the calculated average is 3.39. This shows that managerial resource control (human) is high because 3.39 > 2.5.

Table 4.4 shows that lecturers who copy another person's work are always sanctioned ($\bar{x}$ =3.77, std devn = .46). Supervisors are employed to oversee the daily schedule of the cleaners ($\bar{x}$ =3.73, std devn = .46) and lecturers have to attend promotion examination before they can be eligible for promotion in the department ($\bar{x}$ =3.45, std devn = .55). Also, lecturers involved in examination malpractices will be prosecuted and dismissed ($\bar{x}$ =3.35, std devn = .48) while lecturers who fail to publish papers in both local and foreign journals may be denied promotion ($\bar{x}$ =3.26, std devn = .45). Further, lecturers are allowed to go on annual leave only if vacancies exist ($\bar{x}$ =3.16, std devn = .39) and lecturers found guilty of collecting unauthorised levies from students will be seriously punished ($\bar{x}$ =3.13, Std devn = .43). The Table also shows that disciplinary committees are constituted to curb the immoral behaviour of lecturers in the departments ($\bar{x}$ =3.12, std devn = .40) while lecturers are made to sign course attendance register in departments ($\bar{x}$ =3.06, std devn = .40). Table 4.4 also shows that lecturers involved in commercialising departments' properties for their personal use will be punished ($\bar{x}$ =2.96, std devn = .38).

These are all high mean scores and coupled with the high weighted average of 3.39, the level of human resource control in the colleges is very high.

Research Question 4

What is the level of transportation facilities control as indicated by maintenance departments and selected heads of departments?

Table 4.5:   Transportation Facilities Control in the Colleges

N = 600

S/N	Statements	SA	A	D	SD	Means	Std. Dev.
1	Any officer that will use official vehicles for official assignments have to sign vehicle movement book before and after usage.	504 (84.0%)	92 (15.3%)	4 (0.7%)	0 0%	3.83	.38
2	Only the Head of Department is authorised to assign official vehicles for official assignments.	499 (83.2%)	100 (16.7%)	1 (0.2%)	0 0%	3.64	.67
3	The original particulars of the college vehicles are kept with the transport committee of the college.	285 (47.5%)	300 (50.0%)	15 (2.5%)	0 0%	3.44	.51
4	Only the recognised college transport committee is authorised to purchase vehicles for the college.	535 (89.2%)	60 (10.0%)	5 (0.8%)	0 0%	3.37	.52
5	The college petrol filling station is authorised to fuel college vehicles on official assignments alone.	569 (94.8%)	28 (4.7%)	3 (0.5%)	0 0%	3.22	.49
6	Security men are put in place to check incoming and outgoing official vehicles.	569 (94.8%)	28 (4.7%)	3 (0.5%)	0 0%	3.22	.49
7	Receipts collected on the expenses made on official vehicles outside the college are to be scrutinised before payment by the accounts' departments of the colleges.	100 (16.7%)	495 (82.5%)	5 (0.8%)	0 0%	3.12	.54
8	The kilometres covered by the official vehicles before and after usage should be recorded.	444 (74.0%)	152 (25.3%)	4 (0.7%)	0 0%	3.12	.46
9	The colleges' maintenance departments are authorised to carry out repairs of colleges' vehicles.	502 (83.7%)	96 (16.0%)	2 (0.3%)	0 0%	2.98	.64
10	Officer that drives the official vehicles carelessly will be responsible for the repairs if damaged.	100 (16.7%)	470 (78.3%)	30 (5.02)	0 0%	2.67	.70
	Assumed Average = 2.5, Weighted Average = 3.26 Remark = High						

Source: Fieldwork result carried out by the researcher, 2008.

SA = 4, A = 3, D = 2, SD = 1

The assumed average = 2.5, the calculated average is 3.26. This shows that managerial control of resource (transportation) is high because 3.26 > 2.5.

Table 4.5 shows that any officer that denies to use official vehicles for official assignments have to sign vehicle movement book before and after usage ($\bar{x}$ =3.83, std devn = .38) and only the Head of Department is authorised to assign official vehicles for official assignments ($\bar{x}$ =3.64, std devn = .67). Also, the original particulars of the college vehicles are kept with the transport committee of the college ($\bar{x}$ =3.44, std devn = .51). Only the recognised college transport committee is authorized to purchase vehicles for the college ($\bar{x}$ =3.37, std devn = .52). while only the college petrol filling station is authorized to fuel college vehicles on official assignments ($\bar{x}$ =3.22, std devn = .49). Security men are put in place to check incoming and outgoing official vehicles ($\bar{x}$ =3.18, std devn = .48), receipts collected on the expenses made on official vehicles outside the college are to be scrutinised before payment by the accounts departments of the college ($\bar{x}$ =3.12, std devn = .54) and the kilometres covered by the official vehicles before and after the usage should be recorded ($\bar{x}$ =3.12, std devn = .46). The Table further shows that the college maintenance department is authorised to carry out the repairs of the college vehicles ($\bar{x}$ =2.98, std devn = .64) and the officer that drives the official vehicles carelessly will be responsible for the repairs if damaged ($\bar{x}$ =2.67, std devn = .70).

All the mean scores were found to be high and above the 2.5 mid point value and with the weighted average of 3.26 which is also high, the level of transportation resource control is high in the selected colleges.

Research Question 5

What is the level of accommodation facilities control as indicated by estate management and students affairs departments?

Table 4.6: Accommodation Facilities Control in Selected Colleges
N=600

S/N	Statements	SA	A	D	SD	Means	Std. Dev.
1	Reconstruction of the occupied accommodation by the tenants is not allowed.	130 (21.7%)	445 (74.2%)	25 (4.2%)	0 0%	3.99	.15
2	Any infrastructure damaged by the tenants have to be replaced at the time of exit.	100 (16.7%)	480 (80.0%)	15 (2.5%)	5 (0.8%)	3.97	.19
3	Subletting of the allocated houses is prohibited.	128 (21.36)	420 (70.0%)	50 (8.3%)	2 (0.3%)	3.88	.133
4	The works department takes inventory of the supplied furniture to the college houses at regular intervals.	449 (74.8%)	90 (15.0%)	59 (9.8%)	2 (0.3%)	3.83	.40
5	The furniture supplied by the colleges to the staff houses are to be used carefully by occupants.	502 (83.7%)	96 (16.0%)	2 (0.3%)	0 0%	3.87	.41
6	Only College Student Affairs department is authorised to allocate hostel rooms to bonafide students.	160 (26.7%)	436 (72.7%)	4 (0.7%)	0 0%	3.26	.45
7	Students have to produce accommodation payment receipts before they can be allocated rooms.	470 (78.3%)	120 (20.0%)	10 (1.7%)	0 0%	3.17	.55
8	Works department of the colleges is authorised to allocate houses to teaching and non-teaching staff of the college.	100 (16.7%)	400 (66.7%)	85 (14.2%)	15 (2.5%)	2.97	.68
9	The key to each room has to be dropped at the porters' lodge pigeon hole when going out.	213 (35.5%)	385 (64.2%)	2 (0.3%)	0 0%	2.93	.38
10	Any interested member of staff is expected to write application requesting for college accommodation.	150 (25.0%)	430 (71.7%)	20 (3.3%)	0 0%	2.30	.74
	Assumed Average = 2.5,		Weighted Average = 3.41,			Remark = High	

Source: Fieldwork result carried out by the researcher, 2008.

SA = 4, A = 3, D = 2, SD = 1

The assumed average = 2.5, the calculated average is 3.41. This shows that managerial control of resource (accommodation) is high because 3.41 > 2.5.

From Table 4.6, result shows that reconstruction of the occupied accommodation by the tenants is not allowed ($\bar{x}$ =3.99, std devn = .15) while any infrastructure damaged by occupants have to be replaced at the time of exit ($\bar{x}$ =3.97,

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std devn = .19). Also, subletting of the allocated accommodation/apartment is prohibited ($\bar{x}$ =3.88, std devn = .33) and the works department takes inventory of the supplied furniture to the college houses at regular intervals ($\bar{x}$ =3.83, Std devn = .40). The furniture supplied by the college to the staff apartments are to be used carefully by the tenants ($\bar{x}$ =3.82, std devn = .41), only College Student Affairs department is authorised to allocate hostel rooms to bonafide students ($\bar{x}$ =3.26, std devn = .45) and students have to produce accommodation payment receipts before they can be allocated rooms ($\bar{x}$ =3.17, std devn = .55). It was further observed that the works departments of the colleges are authorised to allocate houses to teaching and non-teaching staff of the college ($\bar{x}$ =2.97, std devn = .68) and the key to each room has to be dropped at the porters' lodge pigeon hole when going out ($\bar{x}$ =2.93, std devn = .38). However, they disagreed with the fact that any interested member of staff is expected to write application requesting for college accommodation ($\bar{x}$ =2.30, Std devn = .74).

This means that although the regulation is on ground, it does not appear as if it is followed or allowed to work. This is the only item with low mean score. All the others have high mean scores. In essence, the 3.41 weighted average shows that the level of accommodation resource control is high.

Research Question 6

What is the level of academic achievement of students of colleges of education in south western Nigeria as revealed by students' and examination results from the college records?

Table 4.7:   Results of Academic Achievement of Students from Selected Colleges of Education

	N	Minimum	Maximum	Mean	Std. Deviation	Remark
COURSE 1 (The Use of English)	600	34.00	80.00	58.3567	7.5735	Average
COURSE 2 (Teaching Practice)	600	34.00	78.00	55.1817	7.7715	Average
COURSE 3 (Computer ICT)	600	33.00	73.00	51.7933	8.3146	Average
COURSE 4 (Education Course)	600	33.00	73.00	49.7367	9.3602	Below Average
COURSE 5 (General Studies)	600	29.00	72.00	49.0450	8.9175	Below Average
PERFORMANCE	600	37.40	66.00	52.8227	5.1232	Average

Source: Examination and records sections of the selected colleges, 2008

Key %   A = 70+; B = 60-69, C = 50-59, D = 45 – 49, E = 40-44 and F = 0 – 39.

The assumed average is 50-59%, the calculated average of academic achievement is 52.82%. This shows that the academic achievement of the colleges is on the average because 52.82% is on the grading scale "C", between 50 and 59%.

Table 4.7 showed that in Course 1, the performance ranged from 34 to 80% with an average score of 58.36% ($\bar{x}$ =58.36). For course 2, the scores range from 34 to 78% yielding an average score of 55.18% ($\bar{x}$ =55.18). The mean performance for Course 3 is 51.79% ($\bar{x}$ =51.79) while for courses 4 and 5, the mean scores are 49.73 and 49.04 respectively, expressed in percentages. On the whole, the mean score for academic achievement which sums up the whole 5 courses is 52.82 that is, 52.82%. This value shows that the academic achievement of the colleges is on the average. Also, on the grading scale, the performance fell to C grade, between 50 and 59. This is not good enough.

Research Question 7

What is the perception of respondents on the academic achievement of the students in selected colleges of education in south western Nigeria?

Table 4.8:   Perception of Students' on Academic Achievement

N=600

S/N	Statements	SA	A	D	SD	Means	Std. Dev.
1	The provision of recreational facilities in the college has improved the mental alertness of the students.	100 (16.7%)	480 (80.0%)	20 (3.3%)	0 0%	3.99	.12
2	Students have access to the lecturers for assistance and discussions on academic work.	7 (1.2%)	463 (77.2%)	55 (9.2%)	75 (12.5%)	3.98	.16
3	Uninterrupted supply of electricity has improved the reading habits of the students in the college.	0%	280 (46.7)	220 (36.7%)	100 (16.7%)	3.98	.16
4	Lecturers always complete the teaching of the course contents at the end of the academic session.	230 (38.3%)	360 (60.0%)	10 (1.7%)	0 0%	3.95	.30
5	Accessibility of the students to the use of ICT facilities for research works is on course.	160 (26.7%)	438 (73.0%)	2 (0.3%)	0 0%	3.86	.38
6	Students are allowed to borrow needed textbooks from the library.	270 (45.0%)	326 (54.3%)	4 (0.7%)	0 0%	3.80	.41
7	The colleges' library are well-equipped with most recent journals and relevant textbooks for students' use.	20 (3.3%)	523 (87.2%)	53 (8.8%)	4 (0.7%)	3.73	.51
8	Conducive hostel accommodation with adequate security are provided for the students to enhance research and learning.	150 (25.0%)	400 (66.7%)	50 (8.3%)	0 0%	3.73	.51
9	College buses are provided to the students to facilitate their movement in and out of the school area.	100 (16.7%)	410 (68.3%)	60 (10.0%)	30 (5.0%)	3.52	.52
10	The college library operates for the use of the students on week ends.	59 (9.8%)	440 (73.3%)	101 (16.5%)	0 0%	2.26	.83
	Assumed Average = 2.5, Weighted Average = 3.68, Remark = High						

Source: Fieldwork result carried out by the researcher, 2008.

SA = 4, A = 3, D = 2, SD = 1

The assumed average = 2.5, the calculated average is 3.68. This shows that the perception of students on the academic achievement is high because 3.68 > 2.5.

Table 4.8 shows that the provision of recreational facilities in the colleges has improved the mental alertness of the students ($\bar{x}$ =3.998, std devn = .12). Students

have access to lecturers for assistance and discussions on academic work ($\bar{x}$ =3.98, std devn = .16). Also, uninterrupted supply of electricity has improved the reading habits of the students in the college ($\bar{x}$ =3.98, Std devn = .16). Lecturers always complete the teaching of course contents before the end of the academic session ($\bar{x}$ =3.95, std devn = .30), accessibility of the students to the use of ICT facilities for research works is on course ($\bar{x}$ =3.86, Std devn = .38). Further, students are allowed to borrow needed textbooks for use from the library ($\bar{x}$ =3.80, std devn = .41), the college library is well-equipped with most recent journals and relevant textbooks for students use ($\bar{x}$ =3.73, std devn = .51). Conducive hostel accommodation with adequate security are provided for the students to enhance research and learning ($\bar{x}$ =3.69, std devn = .48). Table also shows that colleges buses are provided for the students to facilitate their movement in and out of the school area ($\bar{x}$ =3.52, std devn = .52) but they disagreed with the assertion that the college library operates for the use of the students on week ends ($\bar{x}$ =2.26, std devn = .83). On the whole the 3.68 weighted average shows that the students generally perceive their level of academic achievement has being greatly improved by the colleges managerial resource control.

Hypothesis One

HO$_1$: There is no significant relationship between materials resource control and students academic achievement.

Table 4.9:   Correlation between Material Resource Control and Academic Achievement

Variables	Mean	Std. Devn.	N	df	r	P	Remark
Materials Resource Control	14.7250	3.0982	600	599	.044	.285	n.s.
Academic achievement	55.8500	8.4710					

n.s. = not significant at P < .05

Table 4.9 shows that the relationship between materials resource control and students' academic achievement is very weak, positive but not significant (r=.044; df = 599; P>.05). This means that although academic achievement tends to improve as material resources control improves, this is not to a significant extent. Hence, hypothesis 1 is accepted.

Hypothesis Two

HO$_2$:   There is no significant relationship between financial resource control and students' academic achievement.

Table 4.10:   Correlation between Financial Facilities Control and Academic Achievement

Variables	Mean	Std. Devn.	N	df	r	P	Remark
Financial Resource Control	24.4800	3.6071	600	599	.339	.000	Significant
Academic achievement	55.8500	8.4710					

Significant at P < .05

Table 4.10 shows there is a slightly weak but positive significant relationship between financial resource control and academic achievement (r=.399; df=599; P<.05). Hence, hypothesis 2 is rejected. This implies that as financial resource control improves, students' academic achievement is greatly enhanced.

Hypothesis Three

HO$_3$:   There is no significant relationship between transportation facilities control and students' academic achievement.

Table 4.11:   Correlation between Transportation Facilities Control and Academic achievement

Variables	Mean	Std. Devn.	N	df	r	P	Remark
Transportation Resource Control	14.6800	14.6800	600	599	510	.000	Significant
Academic achievement	55.8500	8.4710					

Significant at P < .05

Table 4.11 shows positive significant relationship between academic achievement and transportation facilities control (r=.510; N=600; P<.01). Null hypothesis is rejected.

Hypothesis Four

HO$_4$:   There is no significant relationship between accommodation facilities control and students' academic achievement.

Table 4.12:   Correlation between Accommodation Facilities Control and Academic achievement

Variables	Mean	Std. Devn.	N	df	r	P	Remark
Accommodation Resource Control	18.5200	3.7354	600	599	.442	.000	Significant
Academic achievement	55.8500	8.4710					

Significant at P < .05

From Table 4.12, there is a weak but positive and significant relationship between accommodation facilities control and academic achievement (r=.442; df=599; P<.05). This means that as accommodation facilities control improves, students' academic achievement also improves. Hence, hypothesis 4 is rejected.

Hypothesis Five

HO$_5$: There is no significant relationship between human resource control and students' academic achievement.

Table 4.13: Correlation between Human Control of Resource and Academic achievement

Variables	Mean	Std. Devn.	N	df	r	P	Remark
Human Resource Control	21.9400	4.3275	600	599	.573	.000	Significant
Academic achievement	55.8500	8.4710					

Significant at P < .05

Table 4.13 shows there is a slightly strong, positive and significant relationship between human resource control and students' academic achievement (r=.573; df = 599; P<0.05). Hypothesis 5 is therefore rejected. This implies that as human resource control is enhanced, students' academic achievement is greatly improved.

Hypothesis Six

HO$_6$: There is no significant composite effect of the five managerial control of resources variables viz: material, financial, human and infrastructural facilities, transportation and accommodation on students' academic achievement .

Summary of Regression Analysis

Table 4.14: Summary of Regression Analysis

R	R Square	Adjusted R Square	Std. Error of the Estimate
.667	.444	.440	6.300

ANOVA						
Some of Variance	Sum of Squares	df	Mean Square	F	P	Remark
Regression	18860.876	5	3772.175	95.042	.000	Significant
Residual	23575.624	594	39.690			
Total	42436.500	599				

From Table 4.14 shows that the multiple regression correlation coefficient (R) indicating the relationship between the independent variables (material, financial and human resources and transportation and accommodation facilities) and dependent variables (NCE student academic achievement) is 0.667. This implies that there is a positive multiple regression correlation between the independent and R squares is .440 meaning that the independent variables contributed 44 percent to the variance in NCE student academic achievement.

Hypothesis Seven

HO$_7$: There is no significant relative effect of each of the five managerial resources control variables on students' academic achievement.

Table 4.15: Relative Contribution of each of the Five Variables to Academic Achievement

Variables	Unstandardised Coefficient		Standardised Coefficient	Rank	T	P	Remark
Constant	16.643	2.378			6.999	000	.Sig.
1. Financial resource control	.348	.085	.149	3rd	4.071	.000	.Sig.
2. Transportation facility control	.565	.117	.203	2nd	4.818	.000	.Sig.
3. Accommodation facility control	.274	.085	.121	4th	3.208	.001	.Sig.
4. Human resource control	.771	.069	.396	1st	11.251	.000	.Sig.
5. Materials resource control	2.801E-02	.084	.010	5th	.335	.738	N.S.

Significant at P <.05

Table 4.15 shows that human resource control made the highest contribution to academic achievement (β=.396; P<.05). This is also significant. This is followed by transportation resource control (β=.203; P < .05) which also makes a significant contribution. The third in the order of decreasing magnitude is that made by financial resource control (β=.149; P <.05) while accommodation facilities resource control (β=.121; P<.05) comes next with both variables making significant contributions. Only material resource control (β=.010; P >.05) made the lowest contribution which is not significant. The order of these contributions may be represented as Human > Transportation > Financial > Accommodation > Material. Therefore, hypothesis 7 is rejected for human, transportation, financial and accommodation facilities but not rejected for material resources control.

CHAPTER FIVE
DISCUSSION OF FINDINGS

5.1 Findings from Research Questions

The study investigated the relationship between managerial resource variables and infrastructural facilities on academic achievement of students in Colleges of Education in South Western Nigeria.

The research question one investigated the level of academic achievement in the selected Colleges of Education. It was observed that the mean scores for the six selected Colleges of Education ranges from 46.5% to 57.52% expressed in percentages ($\bar{x}$ =51.64). This value shows that the academic achievement of the selected Colleges were on the average. Also, on the grading scale, the performance fell on "C" grade, between 50 and 59. This is not good enough Table 4.1

The research question two analysed the level of material resources control in the institutions. It was discovered that all the items listed yielded high mean score as they are higher than 2.5 border line between agreement and disagreement lines of the scale. On the whole, the weighted average of 3.31 shows that the level of material resource control is high in the selected Colleges of Education, Table 4.2.

The research question three analysed the level of financial resource control in the Institutions. It was observed that all the mean scores are high and the weighted average of 3.81 indicates that the level of financial resource is high.

Research question four analysed the level of human resource control in the selected Colleges of Education. It was observed that there were all high mean scores and coupled with the high weighted average of 3.39, the level of human resource control in the Colleges is very high Table 4.4.

The fifth research question investigated the level of transportation facilities control in the Colleges. It was observed that all the mean scores were found to be high and above the 2.5 mid point value and with the weighted average of 3.26 which is also high, the level of transportation resource control is high in the selected colleges. Table 4.5

The sixth research question investigated the level of accommodation facilities control in selected Colleges. It was observed that the regulation that says that any interested member of staff is expected to write application requesting for College accommodation is on ground, it does not appear as if it is followed or allowed to

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work. This is the only item with low mean score. All the others have high mean scores. In essence, the 3.41 weighted average shows that the level of accommodation resource control is high. Table 4.6.

Research question seven that investigated the level of academic achievement of students of Colleges of Education as revealed by students and examination results from the college records. It was observed that on the whole, the mean score for academic achievement which sums up the whole 5 courses is 52.82 that is, 52.82%. This value shows that the academic achievement of the colleges is on the average. Also, on the grading scale, the performance fell to 'C'; grade, between 50 and 59. This is not good enough. Table 4.7.

The research question eight investigated the perception of students in academic achievement. It was observed that on the whole, the 3.68 weighted average shows that the students generally perceive their level of academic achievement has being greatly improved by the college managerial resource control. Table 4.8.

5.2   Findings from Hypothesis

Research hypothesis one which state that there is no significant relationship between materials resources control and students' academic achievement was accepted. It is however observed that the relationship is very weak, positive but not significant ($r=.0414$; $df = 599$; $p>.05$). This means that although academic achievement tends to improve as material resource control improves; this is not to a significant extent. Hence, hypothesis 1 is accepted. Table 4.9.

The research hypothesis two which states there is no significant relationship between financial resource control and students' academic achievement. It was observed that there is a slightly weak but positive significant relationship between financial resource control and academic achievement ($r=.399$; $df = 599$; $p<.05$). Hence, hypothesis two is rejected. This implies that as financial resource control improves students' academic achievement is greatly enhanced. Table 4.10

Research hypothesis three analysed the correlation between transportation facilities control and students' academic achievement. It was observed that there is positive significant relationship between transportation resource control and academic achievement ($r=.510$; $N = 600$, $p<.01$). Null hypothesis is rejected. Table 4.11.

The research hypothesis four analysed the correlation between accommodation facilities control and students' academic achievement. It was observed that there is a

weak but positive and significant relationship between accommodation facilities control and students' academic achievement (r=.442; df = 599; p<0.05). This means that as accommodation resource control improves, students' academic achievement also improves. Hence, hypothesis four is rejected. Table 4.12.

The fifth hypothesis, it was suggested that there was no significant relationship between human resource control and students' academic achievement. The finding under this null hypothesis revealed that there was a slightly strong positive and significant relationship between human resource control and students' academic achievement (r=.573; df = 599; p<0.05). Hypotehsis 5 is therefore rejected. This implies that as human resource control is enhanced students' academic achievement is greatly improved. Table 4.13.

The research hypothesis six analysed the composite effect of the five managerial control resources variables viz: material, financial, human and infrastructural facilities, transportation and accommodation on students' academic achievement. It was observed that the multiple regression correlation coefficient (R) indicating the relationship between the independent variables (human, financial and material resources and infrastructural facilities, transportation and accommodation and dependent variables (NCE students' academic achievement) is 0.667. This implies that there is positive multiple regression correlation between the independent and dependent variables. The adjusted R square is .440 meaning that the independent variables contributed 44 percent to the variance in NCE students' academic achievement. Table 4.14. Hence, hypothesis six is rejected. This means that the R Square value is not due to mere chance.

Hypothesis seven analysed the relative contribution of each of the five variables to academic achievement. It was observed that human resource control made the highest contribution to students' academic achievement (β=.149; p<0.05) while accommodation facilities resource control (β=.121; p<0.05) comes next both variables making significant contribution. Only material resource control (β=.010; p>0.05) made the lowest contribution which is not significant.

The order of these contributions may be represented as Human > Transportation > Financial > Accommodation > Material. Therefore, hypothesis seven is rejected for human, transportation, financial and accommodation facilities \but not rejected for materials resource control.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary, conclusion and recommendations of the findings of this work. The conclusion and recommendation were based on the findings of the study.

6.1 Summary of the Study

The study investigated the managerial control of resources and infrastructural facilities as correlates of students' academic achievements in state colleges of education in south western, Nigeria (2002 to 2006). It was divided into six chapters with the first examining the rationale for the study, the significance as well as the scope.

The second chapter examined existing literature on concepts like: material resource control, generation of resources, application of resources academic achievement, essential management task, school infrastructure and physical and human resources control. The implications of the human capital theory were discussed and from this review came the choice of the framework adopted for the study.

Chapter three dealt with the methodology used in conducting the study starting from the research design adopted, the population of the respondents, the sample chosen, design of instruments, the determination of the instruments' validation, method of administering the instruments as well as the data analysis procedure.

Chapter four focused on the results obtained followed by detailed discussion. Chapter five discussed the findings in the following order: status of materials resource control in the institutions, level of financial resource control in the institution, level of human resource control in the colleges, transportation resource control in the colleges, accommodation facilities control in the selected colleges, descriptive statistics of academic achievement of students from selected colleges and perception of students' academic achievement.

The last chapter summarised the study, gave the policy recommendations stated the contribution of the study to knowledge and suggestions for further studies. The study concluded with reasons why importance should be attached to improve the managerial control of resources in the colleges of education if Nigeria desired to enhance the academic achievement of the students.

6.2   Summary of the Findings

Findings of the study is summarised below:

1. The level of students' academic achievement in each of the selected colleges of education is average.

2. The level of materials resource control as indicated by maintenance department is high.

3. The level of financial resource control as indicated by the accounts and bursary departments is high.

4. The level of human resource control as indicated by selected heads of departments is high.

5. The level of transportation facilities control as indicated by selected HODs and maintenance departments is high.

6. The level of accommodation facilities control as indicated by the establishment and students' affairs departments is high.

7. The level of academic achievement of students of colleges of education as indicated by the students examination results collected from the colleges is average.

8. The perception of respondents on the academic achievement of the students as indicated by the students is high.

9. There is no significant relationship between materials resource control and students' academic achievement.

10. It is observed that there is positive significant relationship between financial resource control and students' academic achievement.

11. There is positive significant relationship between transportation resource control and students' academic achievement.

12. There is significant relationship between accommodation facilities control and students' academic achievement.

13. It is observed that there is positive significant relationship between human resource control and students' academic achievement.

14. There is significant positive composite effect of the five managerial resources control variables viz: materials, financial, transportation, accommodation and human resources control on students' academic achievement.

15. There is significant positive relative effect of each of the five managerial control of resources variables on students' academic achievement for human,

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transportation, financial and accommodation but not for materials resource control.

6.3   Implication of Findings

Findings for the study have many useful implications for the provost and administrators of Collages of Education. The findings from the study will assist them to provide good remunerations for both the teaching and non-teaching staff for effective productivity.

Also, they will be able to plan on how to develop good maintenance culture of the college infrastructural facilities in order to enhance students academic achievement.

The college authorities would be able to identity and explore other sources of funds with a view to increase private sector involvement and financial contributions to the educational sector and colleges of education subsector in particular.

The inspectorate division of the ministry of education would be able to double their efforts through regular visit of the colleges of education to supervise the managerial ability of the college administration.

The college authorities would be able to allow their college libraries to operate on weekends for the benefit of the students' academic achievement.

6.4   Conclusion

The study investigated the relationship between managerial control of resources and infrastructural facilities variables as correlates of students' academic achievement in state colleges of education in south western, Nigeria. This study covered six colleges of education selected from south western Nigeria. The owner states of the colleges are Ekiti, Lagos, Ogun, Osun and Oyo. It was observed that human resource control made the highest contribution to academic achievement and it is significant. This is followed by transportation resource control which also makes a significant contribution. The third in the decreasing magnitude is financial resource control while accommodation resource control is next with both variables making significant contributions. However, material resource control made the lowest level of contribution and also not significant.

Also, the findings revealed that on the whole, the mean score for academic achievement of students of the colleges selected is on the average which is not good

enough. However, it shows that some variables are more potent than others in determining students' academic achievement in colleges of education programmes in Nigeria. For instance, human resource (variable 3) is the most important factor. It did not only have the highest contribution to students' academic achievement but also, the highest total effect. Therefore, improving these variables will go a long way to enhance students' academic achievement in colleges of education programmes in south western Nigeria.

6.5 Recommendations

Based on the findings of the study, it is recommended that:

The management of the state colleges of education in south western Nigeria should ensure the resources available at their colleges (materials, financial, human, transportation and accommodation) are judiciously managed and effectively controlled in order to enhance and improve the academic achievement of their students.

Since there is need to find further ways of improving students' academic achievement in this part of the country, state government should continue to fund their colleges of education and per student costs (unit cost) expended should be raised. Also, the colleges' authorities should identify and explore other sources of funds with a view to increasing private sector involvement and financial contributions to the educational sector and colleges of education subsector.

College library should operate for the use of students on weekends.

The regulation that states that any interested member of staff is to write application to request for college accommodation should be strictly followed or allowed to work.

The government of each state must venture into other sources of financing the colleges of education instead of depending on allocations from the Federation Account.

Since governments alone cannot shoulder the responsibilities of education at the expense of other sectors of the economy, parents are enjoined to share part of the financial costs.

There is the need for the development of electronic management information system. This would ease collection of information on schools, facilities, enrolment,

teachers' non-teacher, expenditure and finance from the ministries and other educational agencies.

The management of the colleges should ensure that the available resources, human, financial and materials are judiciously managed while the college authority should provide good hostel accommodation and effective transportation system for the use of the students.

6.6   Limitations of the Study

The study involved only a limited number of variables presumed to influence students' academic achievement, there could be many more variables that could determine students' academic achievement in colleges of education.

Another major limitation of the study was that the officials working in the examination divisions of the colleges of education covered, were reluctant to provide data on the students' examination records. However, the intervention of the top ranking officials of the examination divisions of the colleges used, helped in data collected for the study.

Lastly, it was not possible to retrieve all the questionnaires distributed as some of the students misplaced the questionnaire given to them, out of 1210 questionnaires distributed, 1,200 questionnaires were fully filled and retrieved giving a return rate of 99.1%.

6.7   Contribution to Knowledge

This study has contributed to knowledge in the following respects.

Human resource control could contribute more than any other variable to the students' academic achievement if well managed and controlled. Students' academic achievement depends majorly on the effective managerial resource control of the five variables selected for the study. Therefore, the stakeholders on education should pay more attention to the managerial aspect to enhance students' academic achievement. The study has been able to provide empirical knowledge on the functional relationship of managerial control of resource variables and students' academic achievement which could serve as useful guide for policymakers or governments generally to intensify their efforts on supervision and monitoring of the managerial ability of the administrators of the established institutions to find out how well they are faring in the management of the resources provided to their institutions.

6.8   Suggestions for Further Studies

The study investigated the relationship between managerial control of resource variables and academic achievement in colleges of education in south western Nigeria. The study could be replicated in other geo-political zones in Nigeria.

Since the study was limited to colleges of education in south western Nigeria; further studies could be carried out using other levels of education (i.e. universities and polytechnics) and covering the entire country.

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APPENDIX

DEPARTMENT OF EDUCATIONAL MANAGEMENT
UNIVERSITY OF IBADAN

MATERIAL CONTROL OF RESOURCE QUESTIONNAIRE (MCRQ)

Kindly fill the appropriate spaces with required information.

SECTION A

(1)   Name of the College: --

(2)   Name of your Department: ---

(3)   Location of School: --

SECTION B

Please, indicate your rating on the following by ticking the appropriate column.

Key: Strong Agree (SA), Agree (A), Disagree (D) and Strongly

Disagree (SD)

S/N		SA	A	D	SD
1.	Lecture theatres are under lock and key at the end of the day's lectures to prevent abuse.				
2.	The inventory of the lecturers office furniture are taken by the maintenance department.				
3.	College laboratory attendance is employed to take care of the laboratory equipments daily.				
4.	Students are not allowed to borrow more than two textbooks at any given time for the convenience of other students.				
5.	Any student that fail to return the textbooks borrowed within two weeks will be penalized.				
6.	Office telephone services provided for the lecturers are to be used for official business only.				
7.	Electricity is switch off by the authority whenever it is not save for use.				
8.	The authority concerned stop the supply of water to the college community when there is pipe burst.				
9.	There are laid down rules for the usage of the lecture theatres by members of the public.				
10.	The college authority carry out regular auditing of the drugs supplied to the health centres.				

DEPARTMENT OF EDUCATIONAL MANAGEMENT

UNIVERSITY OF IBADAN

FINANCIAL CONTROL OF RESOURCE QUESTIONNAIRE (FCRQ)

Kindly fill the appropriate spaces with required information.

SECTION A

(1)   Name of the College: --

(2)   Name of your Department: ---

(3)   Location of School: ---

SECTION B

Please, indicate your rating on the following by ticking the appropriate column.

KEY: Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD)

S/N		SA	A	D	SD
1.	Auditing of the department account is carry out regularly by the college audit department.				
2.	Claim form vouchers are filled to record any expenses made for official assignments.				
3.	The college authority uses cheques to pay workers salaries.				
4.	Tenders have to be advertised on Newspapers, Radio, Television before any contract can be awarded.				
5.	The college authority scrutinizes the budgets prepared by the departments before approval.				
6.	Capital project for departments can only be executed after the approval of the college bursary department.				
7.	All school fees should be paid to the college bursary at all times.				
8.	All payment receipts to be used by all departments are to be supplied by the bursary department only.				
9.	All payment receipts issued out to the departments have to be retired to the bursary on or before the end of each session.				
10.	Any official found guilty of mis-appropriating or embezzlement of college fund will be prosecuted.				

Kindly fill the appropriate spaces with required information.

SECTION A

(1)   Name of the College: --

(2)   Name of your Department: --

(3)   Location of School: --

SECTION B

Please, indicate your rating on the following by ticking the appropriate column.

Key: Very True (VT), Almost True (AT), True (T), Not True (NT)

S/N		VT	AT	T	NT
1.	Lecturers are made to sign course attendance register in our department.				
2.	Lecturers are allowed to go on annual leave only if vacancies exist.				
3.	Supervisors are employed to oversee the daily schedule of the cleaners.				
4.	Disciplinary committee is constituted to curb the immoral behaviour of lecturers in our department.				
5.	Lecturers have to attend promotion examination before they can be eligible for promotion in the department.				
6.	Lecturers that failed to publish papers in both local and foreign journals may be denied promotion.				
7.	Lecturers that copy another person's work are always sanctioned.				
8.	Lecturers involved in examination mal-practices will be prosecuted and dismissed.				
9.	Lecturers found guilty of collecting un-authorised levies from students will be seriously punished.				
10.	Lecturers involved in commercializing the department properties for his personal use will be punished.				

TRANSPORTATION FACILITIES CONTROL QUESTIONNAIRE (TFCQ)

Kindly fill the appropriate spaces with required information.

SECTION A

(1)   Name of the College: ---

(2)   Name of your Department: --

(3)   Location of School: --

SECTION B

Please, indicate your rating on the following by ticking the appropriate column

Key: Very True (VT), Almost True (AT), True (T), Not True (NT)

S/N		VT	AT	T	NT
1.	Only the recognized college transport committee is authorized to purchase vehicles for the college				
2.	The college maintenance department is authorized to carry out the repairs of the college vehicles				
3.	The college petrol filling station is authorized to fuel college vehicles on official assignments alone.				
4.	Any officer that will use official vehicles for official assignments have to sign vehicle movement book before and after usage.				
5.	Only the Head of Department is authorized to assign official vehicles for official assignments.				
6.	The security men are put in place to check both the incoming and outgoing official vehicles.				
7.	Receipts collected on the expenses made on official vehicles outside the college are to be scrutinized before payment by the account department of the college.				
8.	The kilometres covered by the official vehicles before and after the usage should be recorded.				
9.	The officer that drive the official vehicles carelessly will be responsible for the repairs if damaged.				
10	The original particulars of the college vehicles are kept with the transport committee for the college.				

DEPARTMENT OF EDUCATIONAL MANAGEMENT

UNIVERSITY OF IBADAN

ACCOMMODATION FACILITIES CONTROL QUESTIONNAIRE (AFCQ)

Kindly fill the appropriate spaces with required information.

SECTION A

(1)   Name of the College: --

(2)   Name of your Department: ---

(3)   Location of School: ---

SECTION B

Please, indicate your rating on the following by ticking the appropriate column.

KEY: Strongly Agree (SA), Agree (A), Disagree (D) and
Strongly Disagree (SD)

S/N		SA	A	D	SD
1.	Only college Student Affairs department is authorized to allocate hostel rooms to bonafide students.				
2.	Students have to produce accommodation payment receipt before they can be given accommodation.				
3.	The key to each room have to be dropped at the porter's lodge pigeon hole when going out.				
4.	Works department of the college is authorized to allocate houses for both the teaching and non-teaching staff of the college.				
5.	Any interested members of staff are to write application requesting for college houses.				
6.	The furniture supplied by the college to the staff houses are to be prevented from damage by the tenants.				
7.	The works department takes inventory of the supplied furniture to the college houses at regular interval.				
8.	Reconstruction of the occupied houses by the tenants is not allowed.				
9.	Subletting of the allocated houses is prohibited.				
10.	Any infrastructure damaged by the tenants have to be replaced at the time of exit.				

DEPARTMENT OF EDUCATIONAL MANAGEMENT
UNIVERSITY OF IBADAN

STUDENTS PERCEPTION OF ACADEMIC ACHIEVEMENT
QUESTIONNAIRE (SPAAQ)

Kindly fill the appropriate spaces with required information.

SECTION A

(1)   Name of the College: ---

(2)   Name of your Department: ---

(3)   Your Matric No: ---

(4)   Your Academic Level: ---

SECTION B

Please, indicate your rating on the following by ticking the appropriate column.

KEY: Strongly Agree (SA), Agree (A), Disagree (D) and

Strongly Disagree (SD)

S/N		SA	A	D	SD
1.	Students have access to the lecturers for assistance and discussions on their academic work.				
2.	Students are allowed to borrow the needed textbooks for use from the library.				
3.	The college library operates for the use of the students on week ends.				
4.	Accessibility of the students to the use of ICT facilities for research works is on cause.				
5.	Conducive hostel accommodation with adequate security are provided to the students to enhance research and learning.				
6.	The college library is well equipped with most recent journals and relevant textbooks for students use.				
7.	College buses are provided to the students to facilitate their movement in and out of the school area.				
8.	Un-interrupted supply of electricity has improved the reading habits of the student in the college.				
9.	The provision of recreational facilities in the college has improved the mental alertness of the students.				
10.	Lecturers always complete the teaching of the course contents at the end of the academic session.				

APPENDIX III

ACADEMIC ACHIEVEMENT QUESTIONNAIRE (AAQ)

SECTION C

Dear Respondent,

This section is for official use only. Please, Do not fill.

ACADEMIC ACHIEVEMENT	**GRADE**	**KEY**	**%**
Course 1		A = 5	70+
Course 2		B = 4	60-69
Course 3		C = 3	50-59
Course 4		D = 2	45-49
Course 5		E = 1	40-44
		F = 0	0-39

ACADEMIC ACHIEVEMENT =