

**TEACHERS' PERFORMANCE INDICATORS AND
STUDENTS' ACADEMIC ACHIEVEMENT IN LAGOS
STATE PUBLIC SECONDARY SCHOOLS**

BY

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**A THESIS IN THE DEPARTMENT OF EDUCATIONAL
ADMINISTRATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE
STUDIES, UNIVERSITY OF LAGOS**

**IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD
OF THE DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D)**

JULY, 2009

**SCHOOL OF POSTGRADUATE STUDIES
UNIVERSITY OF LAGOS**

CERTIFICATION

This is to certify that the Thesis:

**"TEACHERS' PERFORMANCE INDICATORS AND STUDENTS'
ACADEMIC ACHIEVEMENT IN LAGOS STATE PUBLIC SECONDARY
SCHOOLS"**

Submitted to the
School of Postgraduate Studies
University of Lagos

For the award of the degree of
DOCTOR OF PHILOSOPHY (Ph. D)
is a record of original research carried out

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DEDICATION

To the glory of God and for the benefit of mankind.

ACKNOWLEDGEMENTS

First, my profound gratitude is to God who has enabled, empowered, protected and given me His sustaining power throughout the period of study. His grace was present with me at all times.

Special 'thanks' is due to my major supervisor, Dr. R. A. Alani for bearing with me through thick and thin most especially when it seemed the work was going to be grounded. He plowed through the work painstakingly and offered useful suggestions that enriched the study. He is an icon of excellence. This is praiseworthy! My second supervisor, Dr. P. O. Okunola is highly appreciated especially, as he was drafted into the team at such a crucial time that there was a need for having one more supervisor. He too made notable contributions to the work. I would like also to acknowledge our departmental head, Prof. A. M. Ejiogu who we all admire for his exposure, knowledge and intelligence.

I am most grateful to Dr. K. T. Odusami of the Department of Building, Faculty of Environmental Sciences for his unalloyed assistance, untiring proof-reading, numerous suggestions that helped sharpen my focus during the course generally and my thesis writing in particular. He spent so much time in searching for materials, surfing the net and downloading studies from international journals that were very useful to me.

At this time, I would not fail to mention the departmental P.G. representative, Dr. Virgy Onyene for her support in more than one way, Dr (Mrs) Ann Fabiyi for her encouragement and advice; Dr. S. A. Oladipo who rendered me help at a point in time; Dr. A. A. Adeogun for his words of comfort and Dr. S. A. Bello for urging me to continue till success is achieved.

I would not forget my mentor, Prof. E. O. Fagbamiye, who was first assigned as my supervisor but retired while the work was under way and it was ceded to Dr. R. A. Alani. He is an unforgettable father, a veteran and an erudite scholar of all time.

In addition, I thank Ifeanyi Eze who painstakingly typed the work, most times, under pressure yet not complaining. She was wonderfully helpful. To Tunde Abiodun and his colleagues who were my research assistants, I say, thank you. Last but not the least, I am grateful to my elder sister, Mrs. M. A. Jayesimi for her support, provision and care while the programme lasted and my numerous friends and well wishers most especially, Dr. E. Oshionebo, Mrs. O. Ogunbekun and Ms Sola Johnson for standing with me through it all.

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ABSTRACT

It was observed that students' performance for more than a decade both in internal and external examinations had been deteriorating even though the schools were staffed with qualified professional teachers. Thus there was a need to examine the relationship between teacher performance indicators and student academic achievement in Lagos State public senior secondary (SS) schools which is the concern of this study. Using the school as a unit of analysis, the entire population of SS 2 teachers of Biology, English and Mathematics on the one hand, and ten per cent of this category of students were the study group. A multi-stage sampling technique was used in this study. Schools were randomly selected; while purposive and stratified techniques were used for teacher selection (SS 2 teachers), and student-participants were selected through systematic random technique with special cognizance taken of academic streams (Arts, Commercial and Science). Thus a total of 150 teachers and 1,200 SS 2 students chosen on a pro-rata basis from 35 schools were the study sample. Teacher performance was measured by the Teachers' Personal Data Inventory (TPDI), Teacher Performance Indicators (TPI) filled by Heads of Departments and students, and Teacher Appraisal Form (TAF) filled by school administrators (principals/vice principals). Also, on the spot assessments of teachers and classrooms were done using the Classroom Observation Scale and Classroom Environment and Climate Scale respectively. Student academic achievement was measured by the self-rated Students' Personal Data Inventory (SPDI) and the Achievement Tests on the three core subjects plus two electives (Economics and Yoruba). Ratings were done on a 4-point Likert response format ranging from strongly agree, agree, disagree and strongly disagree to measure the effectiveness of the teachers on the performance variables – teacher preparation, subject matter knowledge, teacher characteristics and interest in teaching. The data were analysed using Pearson Product Moment Correlation, t-test, Analysis of Variance (ANOVA) and regression. The study found a significant positive relationship between each of the following: teacher preparation, subject matter knowledge, teacher characteristics, interest in teaching and teacher classroom performance while a no-effect verdict was given concerning teacher qualifications, marital status, teaching experience, age and teacher performance. Thus, a two-variable model emerged to show that the linear combination of these two accounted for 12.9% of the variance in teacher classroom performance. As a result, a model of two-dimension teacher commitment based on some of the research findings was proposed to help raise teacher classroom performance level in our schools. Stepwise selection results revealed the best overall significant predictors of teacher classroom performance to be interest in teaching and profound subject matter knowledge. One of the recommendations was that teacher educators, education administrators and those charged with the responsibility of managing personnel in the various personnel departments of Lagos State Education Districts should encourage more qualified individuals to enter the profession. Also, they are to assess the credentials of beginning secondary school teachers on an ongoing basis. Finally it was recommended that additional research should be carried out to validate and expand upon the findings of this study.

CHAPTER ONE

INTRODUCTION

Background to the study

The education system like every social organization operates through and with people. Ejioogu (1999) intimates that "it is the people that do make the difference in the achievement level of different organizations." This is why a family prefers their children to attend one school and not another even when both schools are located in the same neighbourhood within their residence, offering all the necessary subjects and are run by the same proprietor (State Government). It is those who work in the institution (the school administrators, the teachers and support staff) who make the difference.

The proponents of human capital theory succinctly declare that the accumulation of physical capital alone makes little or no sense except there are human beings with the necessary skills to make use of the machinery and money. It is also common knowledge that of all human resources in our educational institutions, the teachers are the most indispensable. After all, they are the curriculum interpreters, instructional planners, learning facilitators, classroom managers, students' confidantes, intermediaries between school and community, parents' partners in the education of their children as well as "necessary catalysts to effective learning" (Fagbamiye, 1997). To support the foregoing assertion, Claridge (1990) opines that teachers have responsibility for managing the classroom, dealing with disciplinary problems, motivating students, constructing tests, developing instructional objectives, as well as planning lessons. In line with her reasoning, Veenman (1984) reports that beginning teachers adjudge these aspects of their

job more difficult than presentation of subject matter. All these roles, one may conclude, require the expertise that only qualified teachers can provide effectively.

As Ashworth and Harvey (1994) remark, "the teaching staff is a school's most important resource" among others (financial and material resources) in accomplishing the school goals. A good staff pool comprises well qualified and experienced individuals with a range of academic and professional qualifications matched to the programme of study.

The National Policy on Education (NPE) states, among others, the objectives of secondary education in Nigeria as basically to: (1) provide all primary school leavers with the opportunity for education of a higher level irrespective of sex, social status, religious or ethnic background; (2) offer diversified curriculum to cater for the differences in talents, opportunities and future roles; (3) inspire its students with a desire for self improvement and achievement of excellence (Federal Republic of Nigeria, 2004).

The NPE also specifies the objectives of teacher education in section 4, sub-sections 56 – 65. Of these, two are of direct relationship to this research,

to provide teachers with the intellectual and professional background adequate for their assignment and to make them adaptable to any changing situation not only in the life of their country but in the wider world" and "to enhance teachers' commitment to the teaching profession p.60.

In pursuance of these objectives, the NPE succinctly states that "all teachers in educational institutions shall be professionally trained".

A lot of educators (Fafunwa, 1967; Taiwo, 1980; and Adesina, 1994) have generally discussed much about the history of education in Nigeria and of secondary school education in particular. Some of these works (Oyedeji, 1983) focus on Lagos State. Pertinent also is the fact that both Federal and State Governments have made policies and

regulations on education which have been implemented and modified. The colonial educational policies, the Universal Primary Education and the 6-3-3-4 educational systems, are a few of them.

Furthermore, major reviews were made in Nigerian educational system – the Banjo, the Taiwo, the Ikoku and the Dike Reviews (Oyedeji, 1983) to take care of some weaknesses and incorporate new policy issues. These reviews revealed certain weaknesses in the educational system. Some of these are shortage of qualified teachers, educational facilities, as well as narrowness of the curriculum content. These however are determinants of educational outcomes. Since then many have decried the standard of education in Nigeria as falling; a situation that is still lingering in the educational system to date. It is even disheartening to note that the situation is rather getting worse as the number of qualified secondary school teachers seems to be relatively higher than some years back. Or reverse is the case judging from the student-teacher ratio. There is a wider gap in the scenario today as evidenced in the average class size of 150 students in many Lagos State secondary schools. The only exceptions are those in the border-land areas (Aloba, 1997).

Though more and more teachers are getting enrolled in Teacher Vacation Courses (TVC), such as the Sandwich Programmes to upgrade themselves or get better qualified, there seems to be little improvement in students' performance in Lagos State secondary schools as revealed in the statistics from the Sandwich Unit, Faculty of Education, University of Lagos (Appendix L). At such instance, one wonders if the teachers are relevant to students' learning. The problems besetting secondary education are varied

and multifaceted. These include inadequate finance, physical and material resources, shortage of qualified teachers and indiscipline among teachers and students.

Oguntoye (2000) posits that education is regarded by its major providers (Federal/State Government) as a 'free' good; the demands for it soared to such an extent that by the end of the 1980s, government could hardly cope with the demands. As a result, while the quantity of education dramatically increased, the quality nose-dived to an unprecedented level. In summary, he believes that quality is inversely proportional to quantity in the Nigerian educational system.

The public outcry that normally accompanies the release of students' results in science and Arts subjects especially English Language by the West African Examinations Council (WAEC) every year has called for continuous research in order to find a more permanent solution to the problem that caused the cries. It is common knowledge that more candidates failed English Language every year either in the Senior School Certificate Examination (SSCE) or the Nov/Dec WASSCE than in the seventies. This unfortunate trend started in the early seventies and at present has reached unprecedented level. It was however remarked that there was a noticeable reduction in the percentage of failure between 1991 and 1994 (Kolawole, 1998). However, before this reduction, records show that 73.1%, 72.1% and 72.1% of the candidates that sat for the SSCE failed outright with a score of F9 in 1988, 1989 and 1990 respectively. When the percentages of students that obtained P7 and P8 were added to those who scored F9, the percentage of failure rose to 93.3, 91.0 and 93.3 for three consecutive years.

Obe (1996), writing about mass failure in public examinations most especially SSCE, showed that the failure rate in many SSCE subjects (English Language, Mathematics, Physics, Chemistry, Biology etc) was over 70% yearly in 1989 through 1993. In his words, "English Language and Mathematics are the compulsory, most useful and most dreaded subjects in these examinations." The dread for these subjects might have arisen from the fact that it is mandatory to pass them at credit level at least because both English and Mathematics are pivotal to the study of Arts and Sciences in the tertiary institutions. Besides, English language is the medium of instruction in schools. Yet, the success rate in both subjects ranged between 6% and 22% putting the failure rate at 78.9% in the very least. He concluded that these were poor results that needed urgent remedies. To show that there is no marked difference in the trend in recent times, Ukwuegbu (2001) rightly opines that:

Of all the subjects which candidates take in the Senior School Certificate Examinations, none is as crucial as English Language. It is a subject which candidates must pass if their overall success in the examination is to have any value. A candidate who passes other subjects but fails English Language is as good as failing the entire examination.

This reasoning is in line with the admission requirements of the Nigerian tertiary institutions. The universities especially require at least a credit pass in English Language and Mathematics as an essential pre-requisite for admission irrespective of the course of study. In essence, the universities are dissatisfied with the low standard of English of many entrants who score reasonable marks in the entrance examination but are handicapped in their studies by the inability to write with clarity answers to given questions. Sequel to the above therefore, analysis on candidates' poor performance in SSCE English Language, Ukwuegbu (2001) reported performance over three

consecutive years – 1998, 1999 and 2000. Of the 640,620 candidates who sat for SSCE English Language in 1998, only 53,990 candidates (8.47%) had (A₁-C₆). Out of the 761,060 candidates in 1999, only 73,531 candidates representing 9.78% had good passes. While in 2000, 56,698 (10.67%) of the total 537,256 candidates had good passes. It is shocking that in those three years 417,312 (70.50%); 491,598 (67.63%) and 341,563 (63.57%) completely failed the English Examination. It is doubtful if the pictures were any different in other subjects, especially, when almost all subjects are written in English Language. These results have supported Adeyegbe (1994), who had earlier remarked that students' performances in the SSCE in five subjects - English Language, Mathematics, Physics, Chemistry and Biology in 1988 and 1994 were poor. To further strengthen the argument that the trend of poor performance has spanned over a decade, the result of both the national and Lagos state data on SSCE entries and results for 2000-2005 in Appendix A2 clearly cuts the picture. In addition, National Examinations Council SSCE results in Appendix A3 for the same period nationwide were just a little better than the WASSCE results. However, data were not available for Lagos State on NECO Results.

The issue that this study sets out to address is not peculiar to Nigeria alone. In America, the 1998 Harris poll (Sparks, 2000) showed that 90% of Americans believed that the most important factor in improving student achievement is having a well qualified teacher in every classroom. However, Dozier and Betroth (2000) opine that "America as a nation, is far from having a caring and competent teacher in every classroom". To support this assertion, the Australian Education Union (2001) reported that "across Australia, there is a growing teacher shortage". If nations like the United States of America and Australia in spite of their educational advancements could deplore the state

of their schools, not much is left to the imagination as to the situation of schools in developing countries including Nigeria. Unless this issue is addressed now with a more comprehensive and a national approach, we will have more classrooms without competent teachers and a further decline in students' academic performance.

The Nigerian education system has been reported to consume enormous resources with very little tangible results. In explication, Fagbamiye (1997) pointed out that Nigeria had been found to be less cost effective in education expenditures when compared with other developing African countries. For instance, between 1974/75 and 1977/78 the share of the Gross National Product (GNP) going into recurrent expenditure on education in Nigeria increased from 3% to 9%. Yet, for most developing countries, the average was about 3%. It is obvious that Nigeria was spending three times as much as Ghana, Cote d'Ivoire, Kenya, and Zambia to achieve a great deal less than any of those countries.

As a result of this deplorable state of students' performance, there has been increasing pressure demanding for teachers to justify their pay with effective performance especially as the state government is paying for West African Senior School Certificate Examination (WASSCE) to relieve parents of the financial burden. This case has drawn the attention of policy makers, administrators, parents, in fact, all stakeholders to the evaluation of instruction in the secondary schools. In addition, all stakeholders except the students have to take a close look at how best to prepare and develop prospective as well as in-service teachers so that they can effectively teach their students.

A Statement of the Problem

The South-West geopolitical zone comprising Ekiti, Lagos, Ogun, Ondo, Osun and Oyo states of Nigeria has for decades enjoyed free education at the primary level and tuition

free education at the secondary level. Government financial provisions for education have reduced drastically over the last two decades in spite of the slogan of, "*free education at all levels*". Teachers' conditions of service have worsened and their job performance so very low. The resultant effect is seen in the teachers' low commitment to teaching and students' poor performances in external examinations.

Teachers are not spared from the controversy of falling standards in education. For instance, Fafunwa (1994), Adesina (1977), Taiwo (1980) and Adepoju (1999 and 2002) are of the opinion that availability of competent and committed teachers will aid quality production of secondary school output. They believe also that only such calibre of teachers could enhance the efforts being made by all concerned stakeholders to solve the prevailing problem facing the Nigerian education system.

The above opinion is a pointer to the fact that at all levels of education, teachers play a decisive role in pivoting the growth and direction of education. No wonder then that the National Policy on Education (NPE) affirms that "no education system may rise above the quality of its teachers" (Federal Republic of Nigeria, 2004).

The concern of this present study is to examine to what extent teachers' key performance variables (teachers' preparation, subject matter knowledge, teacher characteristics, instructional management, behaviour management, evaluation of instruction, relationship with students, interest in teaching, teacher commitment and communication) contribute to academic achievement of students in Lagos State secondary schools?

The Research Objectives

The major purpose of this present study is to identify the factor(s) that contribute(s) most to teachers' performance and assess the management techniques teachers employ in classroom operations/interaction in a bid to reduce drastically the incidence of mass failure in the SSCE through improved learning strategies in terms of relevance, quality and efficiency.

Specifically the major purpose is thus broken down into the following objectives:

1. To explain the factor(s) that contribute(s) mostly to teachers' performance.
2. To determine the relationship between teacher preparation (pre-service and in-service training) and teacher performance.
3. To explain the relationship between subject matter knowledge and teacher classroom performance.
4. To investigate the relationship between teacher personal characteristics and teacher performance.
5. To establish the extent to which teachers' professional interest in the job of teaching relate to teacher performance.
6. To assess the differences (if any) that exist in parental involvement, interest in schooling and school environment among the public secondary school types in Lagos State.
7. To ascertain if there are significant differences in student academic performance among public secondary school types in Lagos State.

Research Questions

The study provided answers to the following research questions:

1. What factor(s) contribute(s) most to teacher's performance?
2. What is the relationship between teacher preparation (pre-service and in-service training) and teacher performance?
3. What is the relationship between subject matter knowledge and teacher classroom performance?
4. What is the relationship between teacher personal characteristics and teacher performance?
5. What is the relationship between teachers' professional interest in the job of teaching and teacher performance?
6. What differences exist in parental involvement, interest in schooling and school environment among the public secondary school types in Lagos state?
7. What are the differences in student academic performance among public secondary school types in Lagos State?

Conceptual Hypothesis

Students of expert teachers (all things being equal) who have had pedagogical training, who use varied classroom practices and are interested in teaching are more likely to perform better than those taught by titos/novices with little or no pedagogical training.

Research Hypotheses

The hypotheses generated for this research are as follows:

1. There are no significant differences among the indicators of teacher performance.
2. There is no significant relationship between teacher preparation (pre-service and in-service training) and teacher performance.

3. There is no significant relationship between subject matter knowledge and classroom performance.
4. There is no significant relationship between teacher personal characteristics and teacher performance.
5. Interest in the job of teaching does not relate significantly to teacher performance.
6. There are no significant differences among parental involvement, interest in schooling and school environments among public secondary school types in Lagos State.
7. There are no significant differences in students' academic achievement among public secondary school types in Lagos State.

Theoretical Framework

The theoretical framework for this study was based on research and theory for studying the relationship between teachers' performance and students' achievements not neglecting the mediating factors of the process variables. Previous researches have focused mainly on how input variables relate to process variables or how process variables relate to outcome (Iyewarun, 1985; Obiora, 1967; Ogunbayo, 1988; and Kolawole, 1998). A few have concentrated on input-process-output perspective (Hackman, 1990). James' theory 1939 (Spiggle, 2003) described the teacher as "evoking an unshakeable interest" in what is to be taught. Dunkin and Biddle 1974, p. 21 (Spiggle 2003) purported that "one does not have to look far within school curricula to identify knowledge and skills students would not learn unless presented by a teacher." These researchers explained three models of teaching; (a) the trait model; (b) the social system model and (c) the curriculum model (pp 413-415).

Variables from the three models identified above include the following teacher performance behaviours – teacher praise, acceptance, criticism, asking questions, lecturing, giving directions, use of higher-order knowledge, use of abstract thoughts... post-question structuring, (teacher) conditions set up in the classroom and lesson formats (pp. 413-415). Yet another theory on which this research is hinged is Bandura's Social – Cognitive Theory (1977); a theory which explained the individual motivation that can be used to explain group motivated behaviour. The theory is based on the premise that context information (e.g. performance feedback) affects three process mediators: affective self-evaluations, personal goals, and self efficacy; which in turn affect motivational behaviour.

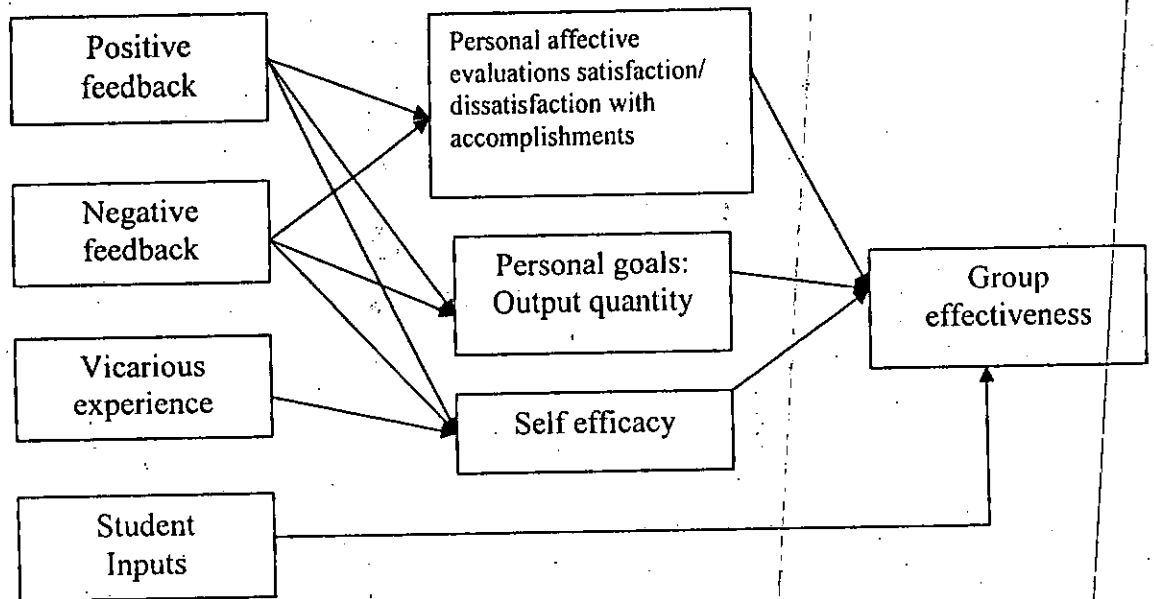
Affective self-evaluation refers to feelings of satisfaction with performance accomplishments, or dissatisfaction which motivates individuals to greater efforts. Personal goal-setting refers to the "capacity to exercise self influence by personal challenge" (Bandura and Jourden, 1991). Finally, self efficacy is the extent to which an individual believes that he/she is capable of successfully performing a specific task.

Stow (1983) pointed out that reinforcement theory was primarily concerned with behaviour modification, demonstrating the power of extrinsic rewards in changing behaviour and arguing that motivation is basically a non-cognitive form of learning in which one's actions are shaped by the scheduling of rewards and punishment. However, these theorists later acknowledged the cognitive side of motivation with the notions like self efficacy (Bandura, 1986) as well as renewed interest in behaviour modelling and vicarious learning.

Dunkin and Biddle (1974) contended that the relationship between these theories "engage the complex and multiordinate processes of instruction (pp. 413) and suggested that "as long as live teachers in conventional classrooms remain, the problem of training them more effectively will depend upon identifying those aspects of teaching that contribute to effectiveness in the complex classrooms setting" (p. 24). From the foregoing, the present study harnessed the antecedent variables of teacher performance, linking them to the process variables and students' achievement which most previous studies have not done. This cognitive gap provides a set of "interrelated concepts (teacher performance factors used in effective instructional practices) that influence quality teachers and positive student achievement. The teachers' effectiveness is shown in the model to be determined by the independent variables in the study: management of instructional time, management of student behaviour, instructional presentation, monitoring and instructional feedback, interest in the job, teacher preparation and classroom communication.

In essence therefore, the present study would undertake to partially fill this gap by:

applying Bandura's (1989) social-cognitive theory to explain the process in which multiple teacher components relate to group effectiveness, assessing the degree to which process variables mediate the relationship between context variables and group effectiveness.



*Figure 1: Latent Variables Structural Model of Group Effectiveness.
Source: Prussia and Kinicki (1996)*

The present study has adopted the social-cognitive model (Figure 1) to link all the school contextual factors either directly or indirectly to student performance as a basis for the model of the present study in figure II.

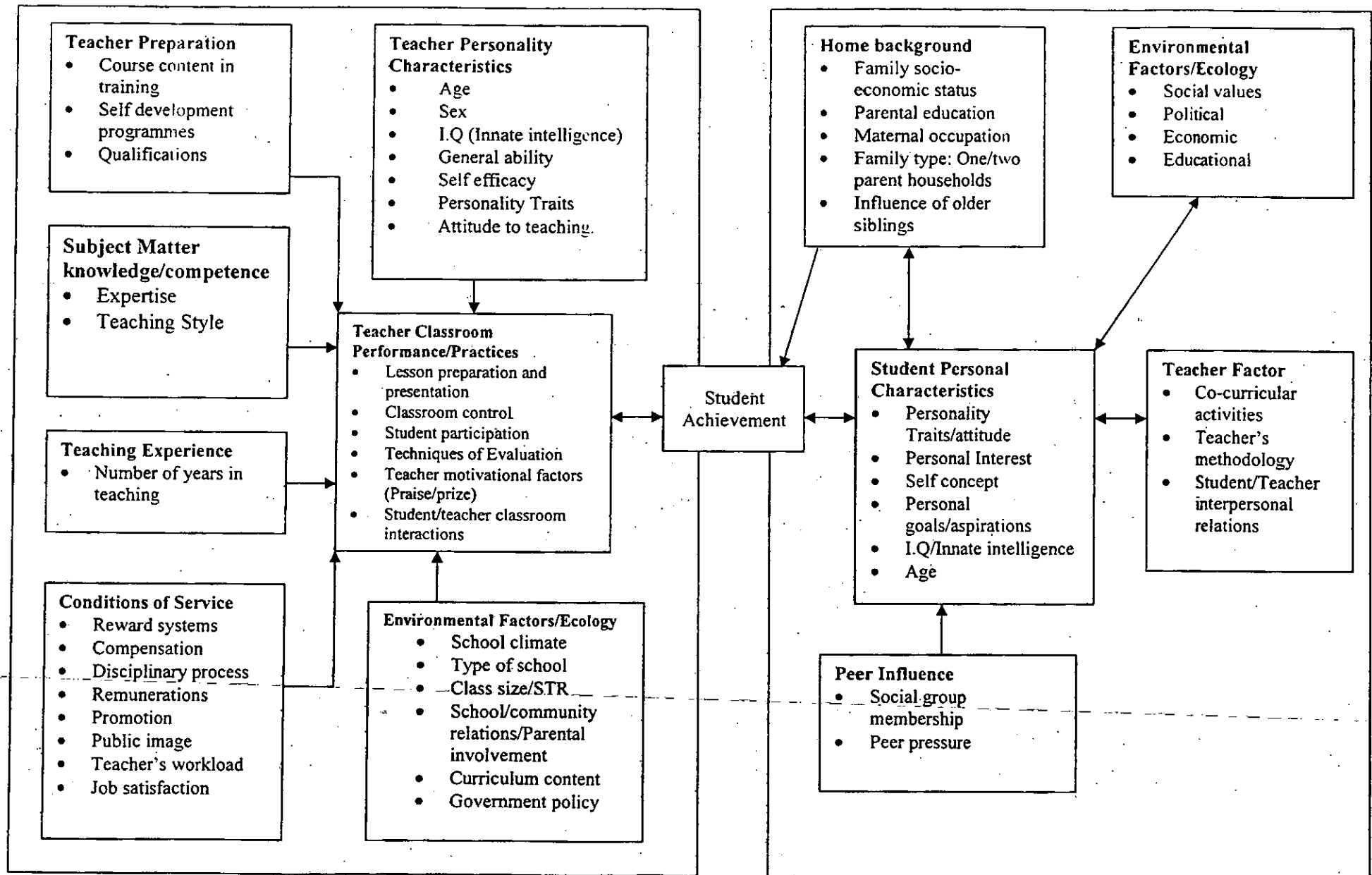


Figure II: Teachers' Key Performance Indicators and Students' Factors/Inputs in Determining Student Achievement

Source: Self made and adapted from Figure I.

From the model, those variables pertaining to teachers and students relate directly to produce either positive result in satisfactory accomplishments, or negatively leading to dissatisfaction (affective personal evaluations) in the achievement of positive self-goals as well as organized and well managed classrooms. All these affect the students' performance positively or otherwise depending on the teacher. In addition, availability and adequacy of school facilities and instructional materials affect teacher's effectiveness in classroom practices.

Thus, the present study's model (Fig. II) is a framework linking the antecedents comprising all teacher variables such as teacher preparation, subject matter knowledge/competence, teacher personality characteristics, interest in teaching, teaching experience and commitment on the one hand to produce the process variables-teacher classroom performance evidenced by relationship with students, instructional management techniques, behaviour management strategies, evaluation of instruction approaches and teacher communication in the classroom. On the other hand, student variables (home background factors, student personal characteristics, interests in schooling and peer influence) were linked to students' achievement.

The two categories of antecedent variables were either directly or indirectly linked through the school contextual factors such as class size, student-teacher ratio, learning environment, school/class climate to determine the outcome variables – student academic achievement and socialization skills. The flow of the arrows shows the direction and connections of the variables of the study: some were unidirectional while others show symbiotic relationships.

Lastly, influence from outside the school e.g. Parents' Forum involvement, Board of Governors' activities, planned curriculum and the activities of the monitoring agents directly reinforce teacher performance and students' learning outcomes.

Significance of the study

The study was conducted to shed light on the state of the teaching force in the State's secondary schools. The results from the study would be useful for school administrators, educational bodies who formulate policies in the area of designing training programmes and re-training of teachers for more productive services using knowledge gained to conduct seminars and workshops. It will also be beneficial to those in charge of personnel management in the areas of selection, recruitment, placement, management and development of teachers. Moreover, it is of value in terms of monitoring assessment in connection with accountability or raising of standards, assessment of teachers for professional improvement, determining teachers' fitness for promotion as well as for refining professional practices. In addition, it will open up areas for further research in order to improve learning outcomes and effective management of educational resources most especially in the school system.

Limitations of the study

This research work is subject to the following limitations in line with Fraenkel and Wallen's (1990) definition. Firstly, some research assistants despite the training given them on the administration of the TPI did not appropriately administer it to the teachers on the chosen five subjects. Rather it was administered to one teacher just like the TPDI in a few schools thereby reducing the number of teachers by a fraction which could not

be ignored. Secondly, it became imperative that the schools rather than the individual teachers became the units of analyses as a result of the mistake highlighted above. Therefore, generalizability of the research results could only be made on group rather than on individual basis and on the three core subjects alone. Also it was discovered that if the analysis had covered all the five subjects, that is, Biology, Economics, English language, Mathematics and Yoruba, the students' high scores in Economics and Yoruba would have made additive impact of raising the students' achievement levels, to give a false picture of students learning outcomes in the Lagos State public senior secondary schools.

Scope of Study

This study covered public senior secondary schools in the six Education Districts spread across the former five administrative divisions of Lagos State: Badagry, Epe, Ikorodu, Ikeja and Lagos Island. The study investigated the relationship between teacher performance indicators and student academic achievement. Ten identified indicators of teacher performance include teacher preparation, subject matter knowledge, instructional presentation/management, behaviour management, relationship with students, interest in teaching, evaluation of instruction, teacher characteristics, commitment and communication.

Also, some factors determining student academic achievement as measured by the Students' Personal Data Inventory (SPDI) were identified in the study. These include Academic Learning Time (ALT) as depicted by attitude towards homework and assignment; study habit, family supportiveness measured by how much assistance an

individual student gets from parents or older siblings, whether or not parents procure textbooks for them; peer group influence as well as inhibitors like amount of time spent on television viewing by respective students. All these items on the SPDI were considered pertinent determinants of students' achievement. In addition academic achievement tests on the three core subjects were used to measure students' learning outcomes.

Operational Definitions of Terms

For the purpose of this study, the following definitions apply to the terms used in this discussion. Terms are listed alphabetically and operationally defined for the purpose of this research.

- **Behaviour management** includes the strategies for behaviour modeling/modification adopted by the teacher to control students in the classroom.
- **Commitment** in the study refers to both the internal motivation in individuals (teachers) to do more than the average in a given context and identification of such teachers with a particular person, object or institution that takes on a special meaning and importance.
- **Communication** refers to both the verbal and non-verbal transmission of information, cognitive content, ideas or ideals in the classroom setting.
- **Evaluation of instruction** has to do with the whole gamut of the teacher's questioning techniques in the course of lesson presentation and assessment: memory, fact, why- and opinion questions.

- **Interest in teaching** refers to the enthusiasm a teacher brings into the profession (personal) as well as the one acquired by participating in the activities in a given context (situational).
- **Management of instructional time** refers to the structuring of the lesson plan in relation to time allotted to each aspect of the lesson.
- **Relationship with students** has to do with the sense of kinship a teacher displays with his/her students that creates a positive learning environment.
- **Students' academic achievement** relates to the accomplishment of the set goals at the beginning of a course cycle in a subject area curriculum revealed in test scores.
- **Subject matter knowledge** covers the cognitive ability beyond the subject curriculum that a teacher exhibits in the course of teaching.
- **Teacher characteristics** include the positive qualities that can enhance performances in the classroom: alertness, willingness to help student learn, warmth, friendliness as well as the bio-data like age, gender, experience, qualifications, innate abilities, and self efficacy.
- **Teacher preparation** refers to the initial pre-service training (10-40 education credits) and the on-going professional development (courses, seminars, workshops) a teacher undergoes on the job.
- **Performance indicators** refer to the specific measures used to judge the level of effective teaching and other related teacher practices in the classroom as related to this study.

CHAPTER TWO

LITERATURE REVIEW

Introduction

In reviewing relevant literature on teacher classroom performance, certain discovery has been made as to which factors one would consider in classifying teachers as being effective or ineffective. Effective teachers are those who possess ability to consistently achieve set goals, which directly or indirectly focus on learning of their students (Anderson, 1991). The steps taken by these teachers to consistently achieve set goals that perhaps others failed to take should account for the differences in students' achievement.

Flanders (1960) found that the difference between the effective and ineffective teacher was not in the procedures and methods employed but in the manner each varied the methods to suit classroom instruction. Others (Rouk, 1979; Soars, 1974) attributed the differential effects to classroom emotional climate and teachers' management of instruction. To Standfur and Adams (1975), the differential effects were due to "maximum student involvement, maximum student freedom, teacher personal traits of warmth, democratic attitude and a personal concern for students". Iyewarun (1983) believes that "congenial relationship between the teacher and the students determine improved learning outcomes, while Fitmaurice (1976) agrees that teachers' attitude directly influence student progress.

Literature was reviewed, around the following: teacher variables, reward systems, communication patterns, student inputs, environmental factors as well as school factors that are known to be determinants of teachers' classroom performance and predictors of students' academic achievement.

Poor public image and self esteem.

Generally, in Nigeria, teachers' public image has been poor over the years. Traditionally in Nigeria (Lagos State not an exception), and in many countries, prospective applicants needed no special preparation (so people believed) to become teachers. Teaching as a result, "was open to all comers" (Fagbamiye, 1997). No regard was shown to either the profession or its professionals by the general public. Thus, public image of teachers has been poor over the years to the extent of affecting their morale and self-esteem (Oguntoye, 2000; Fagbamiye, 2003 and Alani, 2006). In recent times, aspersions were cast on principals (who incidentally are teachers in a television interview when the public was decrying the excesses of principals at the beginning of 2008/2009 academic session (LTV 2008). In addition, Onyene (2005) asserts that if not for professional commitment one cannot hold brief for Nigerian teachers. For every now and again one hears of some allegations against teachers as aiding and abetting students, even primary school pupils' in examination malpractice. Not too long ago, the erstwhile President of the Federal Republic of Nigeria, Olusegun Obasanjo derided Nigerian University lecturer as "contributing nothing to national development." Just recently, principals were fired because students failed the SSCE woefully in their respective schools.

Some writers such as Covey, Connors, Toler (Littleford, 2007) agreed that there are specific leadership behaviours that are non-productive for teachers and schools as a whole community of learners. Among them are dictatorship, micro-management (not allowing unguarded head teachers to do what they are trained to do), using of the results of mandated testing, imbalance between task and relationship behaviour, ineffectiveness of communication, lack of appreciation/recognition from leadership, favouritism and

nepotism, high handedness and inaccessibility to the leadership, to mention a few (Covey, 1995; Robbins and Alvy (1995); Kouzes and Posner, 2007; Shitaker, 2003; Toler, 2002; DePree 1992; Sashkin and Sashkin, 2003; Connors, 2000).

To clinch their argument, Connors (2000) concluded that when morale is high, students benefit greatly. "You can feel the electricity of a highly energized and professional faculty within minutes of entering the building" (p. 70). Other researchers reported school-based management, distributed leadership and shared leadership as enhancing teacher morale which consequently raise student achievement (Hart, 1995; Wallace, 2002; Canburn, Rowan and Taylor, 2003; Lambert, 2002, 2003; Marks and Printy, 2003).

Contrary to the foregoing, George Bernard Shaw had this to say, "*Those who can, do. Those who can't, teach. Those who can't teach others to teach*". An implication of the meaning of the Shavian witticism was still the all too current saying in Nigeria some decades ago. "*Well, if you can't do anything else, you can always teach*", argued Shaw. This assertion may explain the poor image of teaching which has persisted till today although teaching is gradually gaining respect in many countries including Nigeria. This is because only professionals can enter into teaching especially if they are registered with Teacher Registration Council of Nigeria (TRCN).

Inadequate teacher supply.

Almost half a century ago, Coombs (1968) argued that "the problem of teacher supply is not of simple numbers, but it is first and foremost a problem of getting large quantity of the right quality". The term "right quality" is therefore essential. It is however unfortunate to note that the 40% untrained teachers in Lagos State secondary schools

which Oyedele (1978) reported seems to have vanished today. His complaint that as many as 5.5% of the so called trained teachers were holders of Teachers' Grade II Certificate, Associate-ship Diploma and Teachers' Grade I Certificate and the untrained teachers were holders of HSC and GCE or West African School Certificate does not hold true at this present time. However, Onyene (2005) believes that even though there are no known empirical studies on the quality of our teachers, evidence suggests that the quality of teacher education programmes, particularly for primary and secondary schools has been depreciating over the years. To further her discourse, she reiterates that most of those who now go into teacher preparation programmes in the universities are rejects from other faculties; people without plans to become teachers in the future nor have any professional interest in teaching and thus become birds of passage with high level non-commitment to their study and the profession. One wonders at the quality of instruction that these sets of teachers at that time could offer to their students. Yet the performance of the 'trained' ones amongst them would far exceed that of the present day graduate teachers in so many respects.

While expressing his views on the growth in the number of teachers, Farrant (Fafunwa, 2005) highlighted that governments all over Africa, and every other continent were faced with growing number of pupils without a comparative increase in the number of trained teachers. The situation must have effect on school's academic performance and successful planning at each level of education. In Nigeria, Adaralegbe (1985) opines that poor staffing has been a recurrent feature in the country's educational system. Even at this present time the problem of poor staffing still persists in Lagos State but in another dimension; placement is done lopsidedly in favour of urban schools and model collects most especially in the core subjects. School A should be fortunate to have eight teachers

posted to teach English language there for instance, while School B would be given only two teachers in the same subject. Also, Ajayi (1999) found among other things, that the levels of teachers' job performance and students' academic achievement were low.

Teacher's characteristics.

Such attributes as warmth and friendliness, understanding, industry, counsel and encouragement, personal help, gaining confidence and support of parents, physical appearance, and self-esteem have been identified by educational researchers as having additive impact on teachers' effective job performance. As far back as half a century ago, Barr (1961) had identified 15 attributes of an effective teacher. To him, an effective teacher must have the following: a sense of humour, self confidence, neat appearance, creative imagination, aggressive drive, good organization, superior intellect, high morality, an optimistic attitude; or be a social leader, flexible, a good disciplinarian, likeable, empathic and patriotic.

Corroborating Barr's characteristics of effective teachers, other researchers (Exner, 2003; Garins, Santibanez and Daley, 2006; Overall and Sangester, 2007) also employed students' rating couched in such expressions as "sympathetic interest in students, profound knowledge of subject matter, ability to stimulate intellectual imagination, ability to organize and put across subject matter." Ozumba (Awomolo, 1983) also identified seven dimensions of classroom teaching. These are classroom administration, organization and presentation of materials, personal relationship, interest in the job (of teaching), classroom presence, student participation and evaluation of student performance.

Lee (1957) outlines things to consider in an interview for teaching employment in America and such include self confidence, discreteness, warmth and depth, grooming or *persona* habits, dressing with taste, neatness, political inclinations, religious beliefs and orientation. He also added other 12 personality components as essential for teaching which have been validated in recent publications (Overall and Sangster, 2007, Burton and Sartlett, 2005). Adeniji (1999) investigated the effects some teacher characteristics (age, sex, qualifications, teachers' attitude to teaching, teaching experience and teachers' job satisfaction) have on teacher job performance in Ogun state secondary schools. He found that three teacher characteristics-qualification, teaching experience and job satisfaction have direct causal influence on the teacher job performance while others (age, sex, attitude to teaching) have indirect causal impact on same. A few studies have reported some scales designed to measure staff characteristics (Ejiogu, 1990; Forster, 2003) in which objectives of staff appraisal, how to design it, job description, rating method and performance level are clearly discussed. Such characteristics as personal organisation, tidiness, appearance, initiative, disposition, reliability, relationship with superior and colleagues, willingness to help others, integrity, etc are elucidated in these studies. The Teacher Appraisal Form of the present research was adapted from them.

Adeyemo (1988) opines that nothing could be as crucial in management than the problem of personnel. The importance of personnel, according to him, is *nulli secundus* among all management variables, issues and thoughts. Teachers who are to execute government policy are often ignored. There is a general consensus (Kerry and Wilding, 2004; Hay and Miskit, 2005) therefore that teacher facilitative behaviour would enhance student learning outcomes.

Classroom administration principally deals with the teacher's management of classroom. That is, how he organizes the classroom, class activities, distributes responsibilities to his students, maintains order and enforces discipline in the classroom. Teacher Effectiveness Research Project (1983), a longitudinal study of WAEC, identified classroom administration as one of the basic criteria for evaluating the effectiveness of a teacher classroom performance. In the study, four parameters of classroom administration emerged. These are listed as follows: Class control efficiency, accessibility to the students, character influence on the students, and ability to enforce discipline. The study also showed that class control poses a lot of problems for teachers. Sources of these problems are attributed to:

- students' attitude and teachers' tactless ways of handling the students;
- not having their requisite books and consequently less prepared for lessons;
- late-coming to class by both parties;
- absconding from class and re-appearing after a long while, etc.

Management of Instructional Time.

Class management and control revolves round quality and personality of the teachers, as professional educators. We should realise that a successful lesson period which is ascertained through the use of terminal behavioural objectives (evaluation) is an excellent job which is rewarding. Students must feel the presence of the teacher in the class as he is in charge (Akande, 2006). The above assertion coincides with one of the seven categories in a study conducted by Ozumba (1983) and tagged "classroom presence", that is, the over-all impression of the teachers' personality as portrayed by his manners, dressing, speech, etc. This was differentiated from classroom administration defined as

the way a teacher organizes, manages his class including maintenance of discipline to facilitate teaching-learning activities. The researchers concluded that employment of these seven categories would result in the achievement of higher gains for the students.

To further elucidate the concept of classroom management, there is need to look at the broader concept of management. Griffin (2002) has defined management as a set of activities that include planning and decision-making, organizing, leading, and controlling; all of which are directed at utilizing the organization's resources with the aim of achieving organizational goals in an efficient and effective manner. The above definition presupposes that the group hegemony is "shoulder-high" above all other members of the group in expertise, skills utilization and personality traits. In this light, the task of a teacher as a classroom manager is the creation of a conducive learning climate through proper class control that includes all the basic management functions of planning for the lesson, deciding which teaching technique best suits each topic, organizing the lesson period in a step-wise manner, leading the class in discussions and controlling the activities in and around the classroom. Evaluation of each lesson period at different stages of the teaching-learning process is of paramount importance just as he/she must be adept at arousing and sustaining the students' interest in learning. The teacher himself must be thoroughly interested in the teaching profession as well as be interested in teaching youngsters.

Imam (2003) proposes new approaches to classroom management that encompasses strategies to promote learning through the employment of a variety of models categorized as attendance, behaviour control and prevention, staying ahead and inclusion models.

Two of these models, appear acceptable as they concern the management of behavioural problems in the classroom: the behaviour control and prevention. It is said that, "an ounce of prevention is worth more than a pound of cure". That means it is far better to prevent disruptive behaviours than to deal with recalcitrant children after they have disrupted the class.

According to Tassell (2000), both parents and teenagers complain of the frustration by the latter's inability to manage their own behaviour and problems they encounter in life. Thus, many teachers who are not trained in the use of effective discipline methods, more often use assertive discipline, a method which teaches students to accept the consequences for their own actions (Glasser 1984, 1989; Emmer, 1986). In effect, students who continually make improper choices incur increasingly unpleasant penalties. Sharing the same view but with a modification, Kathleen (2002) proposes that teachers seeking to improve the quality of discipline in their classrooms abide by certain guidelines on control which include intervening quickly, developing reinforcement schedules, placing misbehaving students in peer-tutoring arrangements and counseling to seek the cause of the misconduct with a view to assisting the students. In line with the above summation, Kounin (Kathleen, 2002) asserts that there are effective managers as there are ineffective ones. The former are teachers whose classrooms are orderly, have a minimum student misbehaviour, have high level of time-on-task, and a rapport with his class while ineffective managers are those whose classrooms lack these qualities. He observes that effective and ineffective managers do not differ greatly in their methods for dealing with disruption. Only that effective manager has been found to be much more skilled at preventing disruptions from occurring in the first place.

In a nutshell, effective management of the classroom is a comprehensive game plan that goes beyond managing behaviour problems to encompass the whole gamut of instructional strategies including the evaluation of the teaching-learning activities.

Management of Student Behaviour.

Media headlines appear to suggest that schools today are hotbeds of aggressive and violent behaviour. Therefore, school personnel have a responsibility to recognize the effects of lesser yet more predictable misbehaviours of learning, and take a deliberate action to create a positive school environment. There is a growing consensus that a positive and safe learning environment is one that emphasizes co-operation, collaboration and peaceful existence devoid of threats of psychological or physical harm (Manning, 2000).

Charles (2002) listed four categories of student misbehaviour; i) goofing-off (students sit idly, talk to friends, and fail to complete their work), ii) class disruptions, iii) defiance of authority, and iv) aggression. While the most serious offences (e.g., physical assaults) are more likely to make headlines, teachers most often deal with far less significant problems such as non-compliance, calling out, and inattention. Although these problems may seem to be relatively innocuous, they routinely interfere with instruction and challenge teachers to come up with strategies and techniques in response (Charles, 2002).

To curb such indiscipline in students, the teacher needs to investigate the cause of the students' problems and offer assistance to them if they are to be successful academically. After all, the success of the students is the teachers' greatest joy. However, it is worthy of note that the term, "classroom management", is often used interchangeably with

behaviour management. Yet, educators are not interested in behaviour just for its sake. In line with the Teacher Effective Research Project (TERP), Beau (2001) posits that the point where behaviour management broadens to include strategies to promote learning, is where it becomes classroom management. In that wise, Beau (2001) is of the opinion that classroom management is a system of structuring physical space and delivering instruction that manages behaviour with the overall goal of promoting student learning in the classroom.

Learning Environment.

The current significance attached to the school environment stems from several sources. One of them is the middle school documents (Carnegie Council on Adolescent Development, 1989; Jackson and Davis, 2000; Payne, Conroy, and Racine, 1998) that underscore the benefits of a positive school environment on young adolescents' academic achievement and positive socialization. Another is the body of literature on early adolescence (10 – 15year olds) which suggests that these adolescents "have a critical need for a positive atmosphere in which to socialize and learn" (Manning and Bucher, 2001). A third source is the recognition that schools must accept a larger responsibility to establish and strengthen positive interpersonal relationships between students and teachers as well as among learners themselves (Kerr and Zingmond, 1986).

Drawing upon the accumulated literature, there is enough evidence to suggest that effective learning environments usually:

- recognize and accept the differences among young adolescents' physical, psychological and cognitive development, and provide developmentally appropriate instruction.

- place value on gender, sexual orientation, cultural and ethnic differences, and provide classroom organization with instructional approaches that account for these differences.
- provide instruction that ensures a high degree of academic engagement and success for all young adolescents.
- encourage a sense of collaboration among students and educators.
- emphasize teamwork and trust based on the principle of fairness to everyone and that means treating no two students exactly the same.
- recognize that each student brings diverse experiences to the classroom and possesses varied strengths and interests.
- prove that head teachers teach more than academics so that students feel a commitment toward one another as well as a positive affiliation toward the school (Manning and Bucher, 2001).

In their own opinion, Emmer, Evertson, and Anderson (1980) describe a positive learning environment as the one with a high degree of visibility, relaxed, pleasant atmosphere where the teacher listens to students; materials are ready, there are suitable traffic patterns and where students are task-oriented and teachers consistently enforce work standards.

Teaching Methods.

Studies (Cruickshank, Jenkins, Metcalf, 2009; Okebukola, 2006; Anaekwe, 2006; Nzewi, 2003) have considered adoption of Co-operative Learning Strategy (CLS) in teaching certain subjects in the secondary school. It is described as a social situation in which the goals of separate individuals are so linked together that an individual can attain his/her goal only if the associates with whom he/she is co-operatively linked can attain theirs as

well. This mode of teaching encourages grouping students of mixed abilities (highly intelligent, average and below average) together and assigning them work to do after the teacher must have given them instruction. Each group should comprise four or six students. This learning strategy engenders mutual trust, encourages collaboration and teamwork among peers and shows that peer influence may not necessarily be negative all the time. However, the teacher is always around to supervise the groups.

The proponents enumerate the benefits of CLS to include the following: it enhances students' achievement, retention and interest toward learning Science, Technology and Mathematics concepts. It promotes group cohesion, peer-support, social interdependence, psychological health, self-esteem and active mutual involvement in learning while it erases petty jealousy among bright and dull students. It is pertinent to note that such a learning strategy is workable in a positive learning environment.

Other researchers (Cruickshank, Jenkins, Metcalf, 2009; Pollard, 2002; Slavin 2002) favour mastery learning strategy and remediation.

Mastery learning strategy is an instructional mode which incorporates corrective measures used to alleviate students' learning difficulties and increase cognitive gains. Remediation is a prescriptive-corrective technique employed for correcting learning errors among the students. It involves a closer interaction among the learners and between the teacher and the students.

Relationship with Students

Students have expectations about their teachers, to Overall and Sangster (2007), a teacher's personal code of conduct should be based on his/her understanding of ethical

principles, legal requirements, contract of employment, the job and teacher's role with the expectations of other colleagues, parents and the community around the school. For example, there are certain things that are never acceptable: having a carnal knowledge of someone being taught or advocating illegal acts that propagate the tenets of any secret cults.

It should be noted whether good or bad, students have the following expectations of one as a teacher. Take account of students' feelings and emotions about your subject; share your enthusiasm for your subject; praise persistence of individual students and celebrate their achievements; set higher targets for able students; be careful that your jokes are not at someone's expense; be approachable – teaching is a two-way process such that students can ask questions, proffer an opinion even while they need to give feedback.

Rewards

Human beings respond favourably to praise and encouragement. Older students unlike the younger ones have no need for praise or teachers' approval, rather the former need to know what they have got right. What is observed is that this category of students are more concerned about their status with their peers. Rewards can be non-pecuniary such as a smile, claps for correct responses, placing good work on display leading to the students' development of feelings of self-importance. More tangible rewards include: an award, scholarship for further studies, cash gifts, prizes, and a trip overseas. In summary, rewards are used by teachers as an overt indicator of quality work which motivates students for higher attainments.

Ann Bares (2008), in her discourse emphasized that time-frame should be set for measuring and rewarding performance. Should it be annually, quarterly, monthly or bi-annually? Another consideration concerns the instruments to measure performance – how valid and reliable? Various forms of rewards are: retirement benefits, medical benefits and other incentives plans.

To explicate the foregoing, in 1999, the Department of Family Medicine, Indiana University decided that a re-distribution of compensation was necessary to make compensation more reflective of faculty productivity. Members of the department agreed with the departmental leadership that aligning individual efforts to achieve departmental success was important and would require faculty team work. Another belief was that a system which inadequately rewarded team work would jeopardize organisational success. A system was thus designed to reward the faculty physicians and the support staff on the basis of the quantity of work done by each individual. It was satisfying to most members of the faculty. One of the limitations though was that the system rewarded the quantity of work done by an individual physician without any consideration given to the quality of work.

Teachers' performance indicators.

Performance Indicators, as they relate to this study, are examples of behaviours manifest from the teachers' training, conduct of responsibilities that affect positively the achievement of the expected goals. Performance indicators include; teacher preparation, knowledge of subject matter, instructional management, behavioural management,

relationship with students, interest, evaluation of instrument, teacher characteristics and commitment.

A number of educational researchers have attempted to identify the characteristics of effective teachers in the primary and secondary schools but most of these studies are inconclusive. Student ratings of teachers and courses taught are regarded as a vital method of assessing teacher performance. For instance, Lockheed and Komenan (1988) believe that teaching practices rather than teacher quality were predictive of higher attainment in schools. Similarly, Dreeben and Barr (1988) postulated that the organization of classroom time and instructional materials would effect higher gains irrespective of students' ability level.

A study carried out by Fagbamiye and Osunkalu (1979) found that teachers' characteristics (academic qualifications, relevant professional training, work experience, cooperative attitudes, research interest and publications) are the most significant predictors of students' performance. Omisade (1985) found that availability of qualified staff and suitable facilities are positively correlated with students' performance in examination.

In times of teacher shortages, Clarridge (1990) expressed that states had permission to hire graduates of liberal arts and sciences programmes without course work in teacher education. A few of such teachers go for in-service educational courses such as Post-Graduate Diploma in Education (PGDE). This practice of emergency or alternative certification has increased in recent years, as national reports have called for better academic preparation for teachers (Hawley, 1990). It is an indication that teachers need

pedagogical training to be very effective in classroom job performance. She also identified four major variables as indicators of teacher performance. These are: subject matter knowledge and delivery; educational connoisseurship and criticism; non-verbal relational behaviour and systematic and observational teacher evaluation.

However, only a few studies (Wayne and James, 2003; Awomolo, 1988; Jones 1990) have been conducted to compare the effectiveness of teachers with and without course work in teacher education. Almost all of them suggest that pedagogical training is positively related to teachers' job performance. Many of the inadequacies in students' work are traceable to the teachers' incompetence in handling the subject effectively.

Teacher qualification and other school inputs are related to student achievement. The findings of both the qualitative and quantitative analyses of some studies suggest that investments in the quality of teachers may be related to improvements in students' performance. It has also been found that measures of teacher preparation and certification are by far the strongest correlates of student achievement in Reading and Mathematics both before and after controlling for student home factors (Darling-Hammond, 1997; 2003).

A case in point in the teaching profession is, setting objectives for a given lesson period. Such objectives are stated in behavioural terms, specific and measurable. A good teacher's lesson note would have set objectives which must be evaluated at any point of the lesson to determine how many are achieved and the extent to which the lesson period is successful. Classroom performance is inter-twined with the achievement of the teachers' set objectives of their lessons (Annual Performance Evaluation Report). The

above criterion is measured in words like "all objectives but one is achieved". Another item on the APER is student performance scores expressed in percentages. Other indicators are mastery of subject matter; lesson preparation, quality of teaching, pupils' work, attendance at college assemblies, participation in co-curricular activities, punctuality to school/classes; record-keeping, loyalty to constituted authority, etc,

All the above items in the APER form coincide with the key performance indicators identified in various studies conducted in the developed nations (Darling-Hammond, 1997; Claridge, 1990; Jacoby, Cueto, and Politt, 1999), and the 18 competencies observed with the COKER instrument. Coker (1982), Gordon and Yocke (1994), Coker and Coker (1988), concerning teacher effectiveness in the classroom, state that:

A basic justification for observation is the belief that the greatest potential for increasing pupil learning may be found in the process that goes on in the classroom: the interaction between teacher and pupils. If we know the behaviours that enhance pupil learning, we can increase the efficiency of teaching (p. 23).

Thus, the two agree that secondary classroom teacher, and the competencies the teacher exhibits, play a central role in the education of our youth.

Teachers' selection, recruitment, remuneration and conditions of service.

There are set recruitment procedures to follow for those seeking to enter into teaching because not all of those who seek admission into pre-service teacher education programmes are necessarily interested in teaching. Neither does the majority of these have the teaching aptitude nor possess the necessary skills to teach.

Some major questions are to be raised when talking of effective teaching.

- (1) What qualities of temperament, personality and intellect are prime requisites for effective teaching?

- (2) Can anyone teach or more appropriately teach effectively in modern day schools?
- (3) If this job is as important as people believe it is, what should the people look for and strive to obtain in its teachers?
- (4) What steps has the society, through its representative political institutions, taken to facilitate the development of persons possessing these qualities?
- (5) What does society require of those who would become the teachers of its children?

Teacher placement on initial employment, noting some of the more important conditions and considerations relevant to the problem of obtaining a teaching position should be of utmost concern to any group charged with the responsibility of hiring teachers. The individual personality type, temperamental dispositions, character traits are such vital assets to the job performance. The grading of papers, preparation of lessons, meeting with parents and faculty are essential features of any teacher's day and he is forced to adjust to a most strenuous regiment. At the same time he is expected, and rightly so, to be pleasant, tolerant, flexible and energetic. Relaxation somehow, sometime is the keynote in such a situation.

Things to consider therefore in an interview for teaching employment are hereby outlined: self confidence, discreteness/loyalty, warmth and friendliness, grooming/personal habits, dressing with taste; neatness, religious beliefs and orientation, political affiliation and the intellectual capacity. Other personality components of teaching include personal appearance, poise, tact, cheerfulness, initiative and enthusiasm,

professional spirit, alertness and adaptability, self control, co-operativeness, consideration, dependability and discretion.

Carl Jung, the Swiss psychologist centred his theory of personality as a complex network of interacting systems that strive toward eventual harmony with oneself and one's environment (Gordon and Yocke, 1999). He believed that human behaviours, though seemingly random and unorganized, are really quite consistent and orderly, and are a function of different ways in which people prefer to use their perception and judgment. To him, both perception and judgment have two contrasting functions. The two functions of perception, he identified as sensing and intuition, while the two functions of judgement are thinking and feeling. Jung further identified two complementary attitudes or orientations in life; extroversion and introversion. His belief was that both attitudes and functions combine to affect how individuals relate to the world and to other people (McClain, 1987).

Studies have shown that individuals identified as having particular combinations of these functions Extroversion (E) or Introversion (I), Sensing (S) or Intuition (N); Thinking (T) or Feeling (F) exhibit predictable preferences toward certain occupational or academic choices (Kuder, 1968; Campbell & Hansen, 1981; Barret, Sorensen and Hantung, 1985).

Gordon and Yocke (1999) using the Classroom Observation Keyed for Effectiveness Research (COKER) – a synthesis of other five recognized observation instruments found that teacher behaviours having a positive effect on student learning can be keyed into selected competencies to give a profile of the teacher's performance (Coker 1982, Coker and Coker, 1988). Coupling the scores on the COKER competency instrument with the

Meyer-Briggs Type Indicator (MBTI) scores, the researchers found that the Extroversion – Intuitive – Thinking and Perceptive individuals (ENTP) scored highest (59.64); with the Extroversion – Sensing – Thinking and Judging (ESTJ) scoring second highest (58.09) while Extroversion – Intuitive-Feeling-Judging scored 56.36; thus showing the extroversion (attitude) as superior to introversion. Furthermore, the thinking (T) and perception (P) had supremacy over sensing and intuition. In essence, the individual who views things or situations critically, logically analyzing them before making some judgements is likely to be a more effective teacher than the inwardly drawn, spuriously minded and emotionally unstable teacher.

To sum up, it is crucial for those charged with the responsibility of selecting, recruiting and placing teachers into schools or classes to categorise those personality variables before assigning prospective teachers. However, the above analysis should not preclude the intellectual ability, socio-economic status of the teachers as well as that of the neighbourhood in which the school is situated.

Commenting on management in the public sector, Ejiogu (1994) opines that it should begin “now” to staff towards accountability for performance. People should be employed for job and not merely to fill positions; arguing that possession of a certificate is not a fool-proof indicator of capability. His thesis is that prospective applicants must possess not only an academic paper qualification but must have the strength of character as well as be interested in the job. To him, other factors like relevant experience, innate abilities, motivation, adjustment and of course, physical appearance are pertinent to the issue of job performance.

In conclusion, he recommended certain standard tests to test the applicant's interest, personality, aptitude and general intelligence. Some of these tests include the "Guifford - Zimmerman Temperament Survey, "Gordon Personal Profile Inventory", "Watson - Glasser Critical Thinking Appraisal"; Minnesota Vocational Interest Inventory" and others. To further his discourse, Ejiogu (1994) counsels that senior staff in public service institutions should be selected using Leaderless Group Discussion, Management Exercises and Group Problem Solving Techniques to ensure that the right people are employed for the right positions.

Remuneration is not a factor generally considered when one wants to take up a teaching job most especially at this time of widespread unemployment. Yet, it is one of the strongest reasons for which teachers leave the job. No sooner than they take up the job that they realize the paltry sum paid as salaries cannot 'foot the bills' of transportation, feeding, clothing and other expenses associated with their day-to-day upkeep. Not only that, they soon realize they cannot compare with their colleagues in other professions. All these factors hamper teacher job performance.

The teachers' salaries are meager and paid so late. The situation keeps worsening as it were. It is widely believed that in most developing countries especially those that allocate substantial amount to education, between 75% and 95% of the total government allocation for education goes into paying teachers' salaries (Anderson, 1991). However, this assertion is probably not true in Nigeria. To strengthen this argument, it is a known fact that in many states of Nigeria, teachers' salaries are paid so late on the pretext that there is not enough funds. Therefore, no State Chief Executive would not frown at teachers' salaries alone claiming up to 60% of the education budget. In the light of the

foregoing, it is disheartening to note therefore that governments at both the state and federal levels have significantly reduced the funding for public education over the past two decades. This may have made teachers' work far more difficult as conditions of service have worsened.

In view of the incessant complaints by teachers about poor and irregularly paid salaries and unsatisfactory conditions of service, one wonders whether such teachers are likely to perform effectively. The conditions are worsening each year. At the face of unequal treatment of teachers, how can the underplayed ones perform to the fullest capacity expected of them? Also, in comparing students' performances across disciplines, what are the criteria for comparison? Some teachers have fewer students to teach and consequently less discipline problems to cope with, less scripts to mark and more room for student-teacher interactions in the classroom. While others especially teachers handling the core subjects (English Language, Mathematics, Biology) face "pathologically large" (Fagbamiye, 2000) classes which makes classroom management a difficult if not an impossible task. The numerical strength of such classes does not permit the teacher to cope effectively with the individual student's problems. At the teaching level, there is difficulty of teacher's access to class population, straining and loss of voice, problems of marking excessive scripts during continuous assessment and examination and absence of tutorials as well as home works. The teacher also has no time for correcting students' individual mistakes. Even there cannot be proper decorum in the classroom.

According to Majasan (1997 p. 14) "one of the Nigerian teachers' handicaps is usually that they are made to face over-populated classes in an uninviting environment which does not encourage learning." There is no doubt the fact that teachers' salaries are not commensurate to the volume of assignments they are mandated to perform. The meager pay and other incentives are not paid regularly and are frustrating. Frustrated and disappointed teachers are not likely to produce outstanding students. For this reason, the research in part, agrees with the investors in people movement that performance-related-pay is inappropriate for teachers. The study (Electronic Journal) argues that it is difficult to determine the impact of anyone teacher on a pupil's progress. A pupil may have private tuition, help at home or any number of external influences. So, we may never know objectively whether performance-related pay has positive effects on pupil learning outcomes, argues Prof. Dalton, a co-author of the study. In his opinion also, bonus payment could be counter productive because teachers were used to working together instead of competing with one another.

The job description of a teacher when employed spells out what the school expects of such a teacher. The pay structure is fixed as a matter of policy. There is an automatic annual progression (incremental date), the employers have the scope for discretion, most especially rewards for quality work and punishments for wrong doings.

Teachers' work loads are matters dictated by law. In Lagos State secondary schools, teachers are expected to teach a minimum of 24 periods per week on the one hand, and have between 300 and 500 students to whom he teaches his subject (Lagos state Education Law, 2005). Besides, each of the teachers is to grade papers, prepare for lessons, construct tests, engage in pastoral care of his students and partake in any

administrative duties assigned to him/her yet not neglecting to attend staff meetings and be accessible to his/her students needing his assistance.

According to Onyene (2005), three key elements are determinants of organisation's success. These are: effective leadership, effective human resource recruitment and management and effective development of persons, programmes and activities. In operative management as in school administration, the task consists of mainly supervising, motivating and communicating ideas, policy issues, new strategies to all personnel on day-to-day basis. At the school level, employees are directly concerned with implementing decisions, supervising work done and working with others to meet the objectives already set for the school.

Performance reviews are done periodically not only by departmental leaders or heads of schools but also by monitoring officials as well as inspectors charged with those responsibilities.

Investors in people were of the opinion that Performance Related Pay (PRP) was counter productive. How do we measure each teacher's work in the performance level of students? It does not follow that the most effective are those rewarded or that the instruments of assessments are valid. For instance, a teacher of English language, Mathematics or Biology would have a heavier teaching load than perhaps, a teacher of electives such as Visual Art, Music, Religious Studies, Food and Nutrition.

Education quality.

The concept of education quality in policy discussion or school practice is often vague and therefore is not sufficient to direct improvement efforts (Cheng, 1995). Borrowing

ideas from the management literature, the term "quality of education" has been variously defined. Peters and Waterman (1982) define it as "*excellence in education*" while Feigerbaum (1951) sees it as "*value added in education*". Others define it as "*fitness of educational outcome and experience for use*" (Juran and Cryna, 1988), "*conformance of education output to planned goals, specifications and requirements*" (Gilmore, 1974), "*defect avoidance in education process*" (Grosby, 1979), "*meeting and/or exceeding customers' expectations of education*" (Parasutaman et, al, 1985).

Education quality therefore is a rather controversial concept in research and policy discussion. To different people, the definition may be different and so may the indicators used to describe education quality (Fuller, 1986; Hughes, 1988). In an age of Education For All (EFA), the question is, should educational systems be expanded to serve all citizens at the expense of high quality education for a smaller number? Or the reverse be the case in a bid to preserve quality education for the few?

Students' inputs.

The evaluation of the effectiveness of teachers' work would not be objective if the students' factors are not included in the model. In assessing the exit performance of the students, it is necessary to consider the students' entry qualifications. Studies (Jacoby, Cueto, and Pollitt 1999; Ilon and Mock, 1991) have shown that family attributes (e.g. parental education, maternal employment, household monthly expenditures) and personal factors (e.g. student's cognitive ability, skills, values, attitude to work) in combination with school characteristics (e.g. class size, time-on-task in the classroom) contribute to the academic progress of the children.

It is worthy of note also that students themselves have seen these days, many uneducated rich people and this has produced low motivation in them for academic work. Besides, it seems the society no longer places any premium on hard work. Therefore, students with their parents would rather pay teacher-invigilators or even supervisors to enable them (the students) perpetrate examination malpractice. In recent years (2002 to date), as a result of incessant teachers' strike actions, public primary school children transit to secondary schools with little or no preparation for secondary education. Definitely the new secondary school intakes without going through any selection process except those admitted into the Model Colleges and a few upgraded schools in the state cannot be expected to perform to the required standards.

Students' Attendance

Attendance in this study refers to total number of times a student appears in school and stays on to learn in class till the end of the school day. Thus, there are different kinds of attendance: school attendance, class attendance, tardiness and early "sign out" (Electronic Journal 2008). Absence initially are recorded as "unexcused" and will be changed to "excused" upon receipt of reasons for the absences. There are various reasons for students to be absent from school – a student's illness, medical appointment, death in the family, school sponsored or educational enrichment activity approved in advance by the principal and documented absences beyond the control of the parents/guardians as approved by the principal such as suspension for a specific time or indefinitely.

Statutorily, when a student is absent for four weeks consecutively, he/she is considered as having withdrawn from school. Medical reports from a government hospital are expected

from the parents/guardians of such students who are reported absent on grounds of illness. Such students having tenable excuses are taken back on resumption. Otherwise, these are asked to find another school most specially, when these are habitual truants.

There should be sanctions for those students who are absent from school (Fetler, 1999) for the fact that they would have missed all class works done during their absences. Except the students would make up for the work done within a stipulated time, the tendency is that these students miss out and their achievement level would be adversely affected. Yet, it was reported that student attendance is a means of improving student performance and is critical to raising student achievement.

A truant is that student who has up to 15 or more unexcused absences within perhaps, two months. In a study, it was recommended that a student with accumulated unexcused absences more than 10 times from the school or class in a term should have "his termly or sessional examination results withheld pending administrative screening and completion of assigned interventions by the Attendance Review Committee" (Electronic Journal, 2005). This sanction should come after the student and his parents had appeared before the same committee to receive counseling and support relative to the attendance history of the student.

Students' Performance Level Descriptions.

To describe student performance levels certain semantic differentials are used in some studies. Some of these are Distinguished, Proficient, Apprentice and Novice. The 'distinguished/outstanding' science student, when compared to age appropriate goals and standards, is considered to be 'above the class level' in terms of engaging in scientific

activity and learning (Electronic Journal, 2001). Words like 'sophisticated' and 'extensive' are used often as descriptors for this level because the student would provide fully developed responses that include supporting, relevant details which are accurate and appropriate, vocabulary and concepts from the discipline are used, connections with the real world, across disciplines and within the discipline are made. In a word, the student is insightful. The 'proficient/average' students are right 'on target'. To describe this level, the word 'appropriate' is used in terms of engaging in scientific activity and learning. The term suggests that the student provides responses with justification, demonstrates an understanding of concepts and vocabulary, supports with relevant details though there might be occasional inaccuracies in his/her answers. Yet these will not interfere in the understanding of such concepts'. The 'apprentice' student is considered to be 'developing' in terms of engaging in scientific activity and learning. They are described with such words as 'basic,' 'limited' and they suggest little understanding of scientific learning. The 'novice/beginner' is underdeveloped in terms of scientific activity and learning. A lot of inaccuracies attend the responses of such a student's little details at times relevant and at other times not relevant.

In the Arts and Humanities, the above descriptors are used variously as effective communicator producing successfully desired effect, suitable to the given situations, enough/sufficient details: Insightful i.e. showing depth of perception, Minimal (same as least possible) and beginning understanding. The areas scored are always on knowledge, application, concepts and vocabulary, mechanical accuracies, organized relevant materials, fluency of expressions and other communicative skills required in continuous writing (Electronic Journal, 2004).

Most teachers rarely set targets for their students. The lesson objectives akin to these standards are not always extensively expressed and inappropriate descriptions of understanding level as regards concepts, vocabulary, communicative skills and critical thinking are most often used.

Family Influence on Students' Academic Achievement.

Researchers view the influence that the family has on the cognitive development and school achievement of their children from different perspectives. Some believe that it is not solely a result of the development of inherent cognitive structures but grow, in part, out of social interactions with others. While some others believe that bi-directional influences, rather than the unidirectional flowing only from parent to child, characterize parent-child interactions; another school of thought posits that the entire family system, including fathers and siblings in addition to mothers, is important. Thus, Scott-Jones (1980) conceptualizes a thinking parent and an active thinking child interacting in a mutually influencing system that may include siblings and other adults. The impact of the family varies as a function of the child's developmental level and the broader socio-cultural system otherwise known as the macro-system.

The age long controversy is whether the major source of family influence is the genetic transmission of cognitive capacity or the environment provided by the family. Much has been done by researchers who have attempted to separate the tangled effects of heredity and environment. However, almost all agree that the child's intellectual capacity must be influenced to some degree by the environment in which the child develops as well as by the genetic endowment. The major component of the child's environment is his or her

interactions with parents and other adults and this idea underlies a large body of literature on parent-child interactions (Hess and Shipman, 1965; Siegel, 1982). The child's first place of contact with the world is the family. The child, as a result, acquires initial education and socialization from parents and other significant persons in the family. In short, the parents are the child's first teachers. In the African setting, the responsibility of raising a child is a collective one. When parents are involved in the education of their children, the latter tend to model their parents' attitude and actions.

Available research evidence indicates that students with parents who are involved in their education tend to have fewer behavioural problems and better academic performance and are less likely to drop out of school than students whose parents are not involved in their school (Grotruck, 1987; Van Dlen and Mallos, 1979). Corroborating the above findings, Reyholds (1994) demonstrated that a significant relationship existed between parental involvement and academic achievement.

Adults may function as supportive, knowledgeable others performing the roles their children are not ready or have not been able to perform. Also, as social conditions change, the roles of various family members in nurturing the younger ones may change. The father's and older siblings' roles in the child's cognitive development can no longer be ignored. For instance, a student whose father's job demands less working hours may have the father's attention (if he is educated) at his studies especially if the mother is working class. The older siblings might lend a hand at weekends to assist him in doing his home work. Better still, such families can afford to hire home teachers for their children in most subjects or enrol them in good coaching classes.

Another issue is family composition. There are single-parent families as there are two-parent families and it is no gainsay that family structure affects student behaviour and cognitive achievement. There are single-parent families of various forms, shades and sizes. In other words, some mothers are career women who are married to their jobs, as a result, have become executives that no longer need an attachment to any man in particular but would gratify their emotional needs and there from have children. Another category consists of widows and widowers who find no reason to get tangled with another spouse yet have children. There is yet another class of single-parent families – though these were married before and had children from such unions, they are now separated or divorced. Another class includes those few families who have children probably out of wedlock, would have been married and be settled yet are not able to get along with anyone because of mismatch of character and conduct.

In all such homes without adult males, the children would lack the father-figure. As a result, the children might grow up being maladjusted and become social misfits. Same goes for the homes without female adults who should have assumed the motherly roles. The latter category would not only develop negative character traits having lacked the early training mothers give to children but may become negatively disposed toward women. Male children from such a background tend to become independent too early in life while the females can find themselves in early marriages without any hope of a sound education nor a bright future.

The issue at stake is that many a class comprise a motley crowd of these children from such single-parent families, each of whom brings into the classroom the negative behaviour characteristic of this kind of families and consequently, affect the teachers'

classroom performance. For instance, half of the instructional time is spent on dealing with the student misbehaviour in class and if care is not taken, this becomes a trend that definitely jeopardizes academic work which in turn, results into low academic achievement. Nutritional or health problems have been found to have negative effect on student performance. A hungry student would demonstrate lack of interest in class work; can hardly be happy nor active; and certainly would become sickly. It is little wonder then that students of this category perform poorly in their academic work.

Interest in schooling and teaching.

Empirically, interest in schooling has been found to contribute significantly to student academic achievement. Studies like Odinko and Adeyemo (1999; 1999b) found that interest in schooling together with other socio-psychological factors were good predictors of students' attitude and learning outcomes in English Language. The teacher has to live a life which exemplifies interest, alertness, adaptability and willingness to learn. According to Olatunji (1983), criteria for determining interest in the job of teaching are: punctuality to work, devotion to duty, decency in attitude, assistance to students and readiness to accept challenges in the job. This is evident in the extent to which the teacher shows he is willing to do more than the minimum or the average on his job. The way a teacher prepares his lesson notes (how adequate in content and evaluation), his/her motivation of students to learn; attention to duty, willingness to accept additional duties (e.g. giving extra lessons, participating in co-curricular activities, use of free periods, participating in parent-teacher association meetings) and meeting the challenges that come his way during a workday are some of the indices of teacher's interest.

Researchers (Hiddi and Anderson, 1992) have made a distinction about the structure of interest and have identified two forms of interest-personal and situational. While the former concerns the enthusiasm people bring into a situation, the latter has to do with the one people acquire by participating in the activities in a given context. Personal interest (born out of ethical passion) breeds commitment.

Other researchers (Deci and Ryan, 1985; Hackman and Oldman, 1980), because of the nature of commitment, link it to concepts like intrinsic motivation, where rewards come from the activity itself and successful results rather than from contributions controlled by others. Committed individuals should therefore be internally motivated. However, some other researchers (Cruickshank, Jenkins and Metcalf, 2009; Firestone and Roseblum 2003) suggested there are multiple commitments of teacher, such as commitment to teaching, their school, their students and that their patterns of behaviour vary depending upon which commitments are stressed. They further suggested that what a teacher is committed to can make a difference.

It was this suggestion that fuelled this researcher's interest in exploring teacher commitment to teaching and students as part of the variables in this study. Moreover, many previous studies viewed commitment from a global stand-point. The present study thus developed a model establishing a mix of the two dimensions of commitment as predictors of high student achievement.

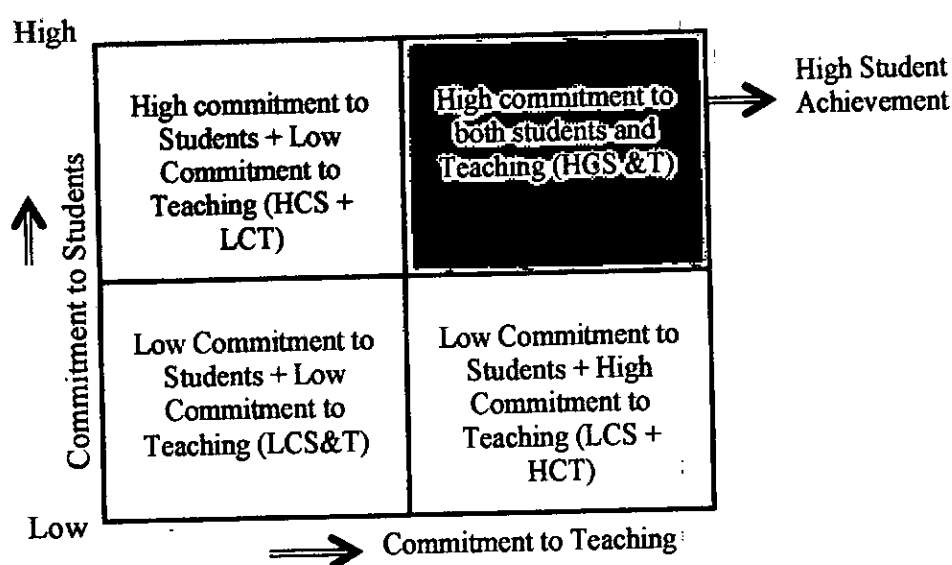


Figure III: A Model of Two Dimensions of Teacher Commitment and Performance.

Source: The Researcher

Graphical representation of the model linking it with student achievement is thus given as: HCS + HCT → HSA.

Teacher preparation, certification and in-service training

The maintenance of a high standard of teaching can be helped by ensuring that teachers are appropriately trained, developed and appraised. In a grading of teaching sessions, Ashworth and Harvey (1994) found that a trained teacher gave a better over-all performance than an untrained teacher; significantly few classes also were unsatisfactory or poor in performance. There is a marked tendency in some quarters to assume that the professional preparation of teachers involves only the study of pedagogy methods, materials of instruction and a period of internship. Though these are certainly essential, one can operate effectively as a teacher only with a thorough understanding of the relationships of education to the total culture. In a nutshell, theory and practice must work 'hand in glove'.

Teachers are thus encouraged and assisted in the business of keeping abreast of new developments, of retaining freshness of outlook and intellectual vigour. On this wise, one needs to consider the in-service training of teachers. This term refers to the sometimes informal, sometimes highly organized attempts of school personnel to learn more about their work on the job. Without any risk of serious challenge, it could be said that the teacher is obligated to assume responsibility for his own development, regardless of official provision. It is therefore unwise to conceive of teacher education as a matter of certification and credentials. Rather it is a lifelong process of continual development. For instance, a teacher should be very keen and willing to attend courses, seminars and workshops organized on his/her own subject area from time to time. Since the whole world is now a global village, gathering information through the Internet is also essential. This practice helps to keep the individual teachers abreast of innovations and changes internationally in the teaching profession.

The quality of teachers surely affects the quality of instruction in Nigerian secondary schools. Ajayi (1985) found that most of the secondary schools in Ogun State that had highest qualified teachers scored 50.7% in GCE O'level. In the same manner, those schools with less qualified teachers scored low as between 22% and 14%. He emphasized therefore that good qualified teachers are more likely to produce good quality students.

On the other hand, Bilesanmi (1999) found that the teacher qualification, mode of study and scientific attitude, gender and attitude to teaching profession had only indirect causal effect on students' achievement in ecology. Also, Adeniji (1999) found that three teacher

characteristics (qualification, teaching experience and job satisfaction) have direct causal influence on the teacher job performance while other characteristics (age, sex, attitude to teaching) have indirect causal impact on the teachers' performance. It is obvious that both of them seem not to agree on the nature of the link between the qualification of the teacher and students' performance. The latter's finding is consistent with Darling-Hammond's (1997) who noted that teacher qualification is one of the strongest predictors of students' achievement.

Ejiogu (1990) believes that since school must operate with and through people, the quality of education in any given society depends considerably on the number and the quality of its personnel. His belief tallies with Coomb's (1968) who identified the problem of teacher supply as not of simple number but a problem of getting large quantity of the right quality. The question to ask is: does today's university trained professional teacher perform better than an NCE holder of the seventies in class?

Other areas in which literature was reviewed include compensation and reward systems, teaching experience, teachers' work load, interpersonal relationships, parental involvement in school activities, students' attendance at school, exit performance (WAEC/NECO SSCE results), performance in achievement tests, destination of school leavers, students' attitude to work, peer influence, home background factors and other variables related to teacher job performance and student academic achievement.

Alani (2000) opines that apart from the pre-employment training of prospective teachers, practising teachers need continuous education in order to keep abreast with new ideas, innovations and policies that affect their occupation. Opportunities for their professional

development abound in the educational system these days, according to him, through part-time/full time courses and efforts of subject associations. However, he laments the unconcerned attitude of many teachers to their own self development in their chosen careers. Reasons, he offers for this observation, include laziness among teachers, lack of motivation from employers in terms of study leave with or without pay, even payment for short term courses organized by professional bodies, teachers' feeling of security most especially those who believe they have reached the zenith of their career and need no improvement. This sense of false security has rendered such teachers not relevant to students any more.

Continuing Professional Development (CPD) is a lifetime process for it goes beyond one's teaching career. Opportunities abound in schools that help build up teachers and their teaching skills (Overall and Sangster, 2007). For instance, mentoring new or beginning teachers is the work of veterans, that is, experienced colleagues in the areas of classroom management, curriculum planning, lesson preparation, grading of papers and constructing tests as well as administering them to students.

Meeting the staff CPD is done in a variety of ways that include: membership of professional subject associations, of teachers' union (NUT) and attending courses, seminars, workshops organised for group of schools on some aspects of teaching or in the management of student behaviour and any other interpersonal skills. Studies have recommended that teachers up date their knowledge by taking courses from Education universities around their schools (Pollard; Collins; Maddock, Simon; Swaffield; Warin, and Warwick, 2005; Capel, Leask and Turner, 2005; Overall and Sangster, 2007).

Summary of the Chapter

The review of literature showed a mixed concern for teacher performance, its evaluation and student achievement because of the inconsistency between process-product approach to teaching and other teaching strategies examined. Effective teachers were described to have developed a sharp awareness of time allocation while concentrating on time to work with both low and high achieving students.

The literature explored teacher characteristics such as were found to enhance teacher performance, strategies of classroom management and student academic achievement. Both school and students' characteristics found to have additive impact on student achievement were examined.

Literature was also presented that supported the emphasis on skills that teachers need for management of instruction, student behaviour and instructional presentation. In addition, literature was reviewed which showed that effective classroom managers prevent disruptive behaviours from taking place by organising and establishing a safe learning environment free from both physical and psychological harm.

The results of these studies have been mixed: however, some trends have emerged in recent times. Even though there was some support for the assumption that subject matter knowledge might be related to teacher performance the findings were not as strong as one might suppose because the results were mixed with some showing a positive relationship and others showing no relationship (Mark and King, 1994). Furthermore, Darling-Hammond (2000c) opined that measures of course-taking in a subject area have more

frequently been found to be related to teacher performance than scores on tests of subject matter knowledge.

A theoretical model of this study shows a framework of latent variables determined by research through this literature review that effectively influence teacher quality linking it to group effectiveness. The direct relationship between these variables and student achievement is shown in the model.

Further investigation is needed to determine on the one hand, effects of teacher quality parameters on student achievement and on the other, supervisor's evaluation of the teacher as related to student achievement. In essence therefore, this study will add to existing knowledge base on teacher performance and student academic achievement or learning gains.

CHAPTER THREE

RESEARCH METHOD

Introduction

This chapter focuses on the methodology used in the study. It covers research design, population, sample and sampling techniques, instruments and instrumentation, study population, data collection procedures, statistical analysis of data and their interpretation.

Research Design.

The study employed the descriptive research design and it is concerned with describing teacher characteristics (age, gender, certification, personality profile, innate traits); student qualities (personal traits, attitude to schooling, home background); set goals, existing and prevailing conditions in schools/classroom and how these affect students' academic achievement (Avalos and Haddad, 1991 and Rosemiller, 1987). It employed classroom observation technique since the events of interest are an on-going process in the classroom.

Population.

All public senior secondary schools in Lagos State were the target population. The state is divided into six Education Districts as was created in 2005, to replace the former 20 Local Education Districts (LED) spread over the former five administrative divisions of the state. Each Education District comprising at least three LEDs and with varying number of schools as contained in table 1.

The target population of the study therefore covers the school administrators such as Principals, Vice Principals and teachers. It also covers students in the 250 public senior secondary schools in Lagos State of Nigeria. The monitoring officials who supervise the instructional processes such as available facilities and teaching records such as schemes of work, lesson notes, subject attendance and marks' book were also included in the research.

Sample and sampling techniques

Since the researcher could not visit all 250 public senior secondary schools in the state nor gather information on all students and teachers, there was need to take a sample of the target population for the purpose of this study. A multi state sampling technique was adopted for the research. Thirty-five senior secondary schools were chosen on a pro-rata basis and systematically with due regards given to school/Education District (ED) location (rural/urban); school size (small school population = 1000 students; medium = 1,500 students and large = over 1500 students); schools' grade (model, upgraded/special, public-public); school type (boys' only; girls' only; and co-educational) and school status (Day/Boarding). The selections were made from (what was left) after the return of 48 schools to missions and private individuals in 2005.

Schools selected, their location and numbers are as follows:

Table 1: Sample Public Senior Secondary Schools by Education District and Number

Education Districts:	Former LEDs	Total No of schools per District	Number sampled	Sample %
District I	Agege, Alimoso, Ifako/Ijaye	33	4	12
District II	Ikorodu, Kosofe, Somolu	37	5	13.5
District III	Epe, Ibeju/Lekki, Etiosa, Lagos Island	43	6	14
District IV	Apapa, L/Mainland, Surulere	43	6	14
District V	Badagry, Ajeromi/Ifeolodun, Amuwo Odofin, Ojo	49	7	14.3
District VI	Ikeja, Mushin, Osodi/Isolo	45	7	15.6

The two categories of participants (teachers and students) were selected using two modes.

The teachers of the three core subjects (Biology, English, Mathematics) handling SS 2 classes were chosen using purposive sampling technique. This sampling technique was used to ensure that every possible characteristic of the teachers was accounted for in gender, teaching experience and training. Thus, a total of 150 teachers (40 Biology teachers, 60 English language teachers and 50 Mathematics teachers) were sampled. The stratified random sampling technique was used to classify the teachers according to qualifications (NCE, HND with/without teaching qualifications, B.A.Ed./B.Sc. Honours, B. A./B.Sc. (Ed) or B. Ed; PGDE, M.A./M.Sc. (Hons) and M.Ed); teaching experience (novice/beginners; mid-career, veterans); mode of study while in training (full-time or part-time); teacher's age (21-30 years, 31-40 years, 41-50 years, and above 50 years); teachers' gender (male/female). Numbers were then assigned to each category of teachers; for example, male was assigned 1 while female was assigned 2.

All the school administrators of the 35 schools (either principals or vice principals) were included in the sample. However, the monitoring officials ranging between 10 and 15 from each of the Education Districts where the schools are located. Also, parents of the

chosen students were vicariously included in the sample. Furthermore, a simple random sampling technique was used to select the SS2 student-participants chosen as follows: small school population ranging between 125 to 132, medium school with student population ranging between 360 and 408, and large students population ranging from 950 to 1050. Therefore, 260 students were chosen from the 20 small schools, 400 students from 10 medium and 533 students from the 5 large schools, but special cognizance was taken of academic streams (Arts, Commercial and Science). Ten per cent of SS 2 students in each of the 35 sampled schools resulted in a total of 1,200 students included in the sample.

Instruments and instrumentation

Necessary information was collected through three main sources. One of them was the researcher-prepared teacher and student checklists tagged "Personal Data Inventory (PDI)" and the "Teacher Performance Indicator (TPI)" while the second were school records. These records included both the personal files of teachers and students containing detailed information on bio-data, the Annual Performance Evaluation Report (APER) for classroom teachers; and the schools' log books. The third source was classroom observation of lessons based on stipulated schedules of Brophy and Good (1986).

The data of this study therefore were gathered through the following instruments: Student Personal Data Inventory, Teacher Performance Indicators, Teacher Appraisal Form, Classroom Observation Scale, Classroom Environment and Climate Scale including the researcher-constructed achievement tests on the five selected subjects. The checklists were scored on a four-point Likert Scale and the achievement tests scored in percentages.

The end-of-course test as part of the student accountability standards, were developed to identify class level student proficiency. This is in line with the North Carolina General Assembly's request that benchmarks be developed to identify grade level proficiency. In response to the call, the State Board of Education included teachers, parents and business leaders in the development of the student accountability standards (Public Schools of North Carolina, 2002).

Validity of instruments

The content validity of the constructed checklists (the Personal Data Inventory (PDI) for both students and teachers, the Teacher Performance Indicators (TPI) filled by students and Heads of Departments, the Teacher Appraisal Form (TAF) (Appendix F) was ensured by giving them to specialists in the field of Educational Administration and Planning, the supervisor to ascertain relevance and clear ambiguity. The Teacher Appraisal Form was adapted from the Employee Appraisal Form (Ejiogu, 1994). Expert teachers (H.O.Ds) were enlisted to observe teachers' lessons at intervals over a specific period of time. Their observations were scored using a Classroom Observation Scale (Brophy and Good 1986; Evertson, Emmer, Clement, Sanford, Worsham and William 1981). Two observers' reports on an individual teacher served as an objective assessment. The Achievement Tests prepared by qualified teachers of these subjects were validated by giving them to three other veterans in the subject areas. Their comments and corrections helped to ensure that these tests were adequate for the level of the students. Also, the researcher adopted some of the statements of an 18-competencies instrument tagged "COKER" suggested by Coker and Coker (1982, 1988) and used in a similar study (Gordon and Yocke, 1999) in arriving at a valid profile of teacher

classroom performance as measured by the PDI and TPI. Thus, the validity of these instruments was established.

Reliability of instruments

Reliability measures for the various instruments (Personal Data Inventory, Teacher Performance Indicators and the Achievement Tests for Biology, English, Maths) were established through the use of internal consistency ratings. Ary, Jacobs, and Razavich (2002) explained that internal-consistency reliability measures include procedures which "assess the inter-item consistency, or homogeneity, of the items... (and) the more homogenous the domain the higher the inter-item consistency" (p. 258). Thus, a pilot work was conducted by generating data from the field using the split half method, the inter-item consistency of test items in Biology, English and Mathematics were tested and this yielded a positive, coefficient of 0.91; 0.93 and 0.89 for Biology, English and Mathematics respectively. Coefficient alpha describes the tendency of items on a given test to correlate positively with one another and is considered to be acceptable at a score of 0.85 or higher (Blackmon Spiggle 2003). Cronbach alpha was computed for the PDI and TPI as teacher performance measures and both yielded 0.88 and 0.85 coefficient respectively.

Procedure for data collection

The field work was conducted between April, 2006 and January 2007. Research assistants who were trained on instrument administration were included in the study. The Heads of Departments in each school were already accustomed to observing their junior colleagues as they teach in class, albeit informally. They were only giving the format of classroom observation scale as a guide to what was required of them. Two or three

observations of each teacher were computed and divided by the number of observations to get the average score on each teacher.

All information concerning bio-data for both students and teachers as well as school data was gathered from section A of each checklist. The scores of the HODs, students and the Vice Principal/Principal on each teacher were averaged to form a composite score on each teacher. The researcher found group mean for all teachers. That was done by finding the mean of the items in the PDI, TPI and to verify which group of teachers' score falls below or above the mean.

Method of Data Analysis

Descriptive and inferential statistics were utilised in the analysis of data. Measures of central tendency such as means and frequencies as well as measures of dispersion, for example, standard deviation were specifically employed in the analysis. Research question 1 was analysed using Pearson Product Moment Correlation Co-efficient and Multiple Regression Analysis. The 't' test statistic was used to test for the difference between two means of the sample population. While research questions 2-5 were tested with Pearson Product Moment Correlation to find the 'r' and 'r²', Analysis of Variance (ANOVA) was utilized to compute the results that answered research questions 6 and 7. The t-test statistic was used to test the difference between two means to ascertain whether it was statistically significant or not. The results of the seven research questions and the seven derived hypotheses are presented in the next chapter.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION OF RESULTS

Introduction

The results from the various statistical analyses carried out in the study of teacher performance indicators and student achievement in Lagos state public senior secondary schools are presented in this chapter. The results are presented in tables grouped under demographic characteristics of respondents and the hypotheses tested according to the independent variables measured.

Data Presentation and Analysis

Table 2 shows the school contextual factors by location, status, type of school, school size and characteristics of teachers by gender, marital status, teaching experience and qualifications while table 4.3 shows the demographic data of student-participants.

The table below present results of the statistical tests of hypotheses 1–6 and other findings related to the study.

Table 2: School Contextual Factors, Teachers' and Students Demographic Characteristics

Categories		Variables					
		School		Teachers'		Students'	
		N	%	N	%	N	%
1	Location:						
	- Rural	7	20	25	16.7	240	20
	- Urban	28	80	125	83.3	960	80
2.	Status:						
	-Boarding	05	14.3	27	18.0	170	14.2
	-Day	30	85.7	123	82.0	1,030	85.8
3.	School Types						
	-Boys Only	03	8.6	-	-	103	8.6
	-Girls Only	06	17.1	-	-	206	17.2
	-Mixed	26	74.3	-	-	891	74.25
4	Gender:						
	-Male	-	-	89	59.3	788	65.7
	-Female	-	-	61	40.7	412	34.3
5a	Age (Teachers'):						
	21-30 years	-	-	06	4.0	-	-
	31-40 years	-	-	56	37.3	-	-
	41-50 years	-	-	82	54.7	-	-
	Above 50 years	-	-	06	4.0	-	-
b.	Age (Students'):						
	11-15 years	-	-	-	-	320	26.7
	16-20 years	-	-	-	-	880	73.3
6.	Qualifications:						
	-Untrained	-	-	32	21.3	-	-
	-Trained	-	-	101	67.3	-	-
	-Untrained with Higher Degree	-	-	06	4.0	-	-
	-Trained with Higher Degree	-	-	11	7.3	-	-
7.	Teaching Experience:						
	-Novices/Beginners	-	-	29	19.3	-	-
	-Mid career	-	-	97	64.7	-	-
	-Veterans	-	-	24	16.0	-	-
8.	Marital Status:						
	-Single	-	-	14	9.8	-	-
	-Married	-	-	136	90.7	-	-

Table 2 presents the general picture of school contextual factors such as dichotomy of location - 7 rural schools (20%) and 28 urban (80%); school status – Boarding schools which were 5, that is, 14.3% and 30 Day schools amounting to 85.7%. Also, school types in terms of gender were shown: Boys' only were 3 (8.6%); Girls' only were 6 in number (17.1%) and Mixed schools were 26 (74.3%).

Further analyses show that majority of the teachers were aged between 31 and 50 years while students' age bracket for most was between 16 and 20 years ($n = 880$; 73.3%) with more females aged below fifteen.

Only 11 teachers out of 150 (7.3%) had a Master's Degree in Education while 107 of them (67.3%) were qualified professional teachers. Relatively, little difference was found between the number of novices and veterans showing that most of the teachers ($n = 97$; 64.7%) were mid-career practitioners. In addition, in terms of gender, the table shows that 89 teachers (59.3%) were male while 61 (40.7%) were female. There were more male students than females: 788 (65.7%) and 412 (34.3%) respectively.

The results that provided answers to the research questions are hereby presented.

Question 1: Which factor(s) mostly contributed to teacher performance?

Ten identified indicators of teacher performance were the break-down of the six factors considered in this study. These are presented in tables.

Table 3: Rank-Ordered Teacher Performance Indicators as Rated by HODs and Students

Teacher performance indicators	N	Total Scores	M.I.S.	Rank	% Contribution	'r'	'r ² '
	150						
Teacher Preparation		689	0.0919	1	11.56	0.811	0.66
Subject Matter Knowledge		677	0.0903	2	11.35	0.767	0.59
Instructional Management		669	0.0892	3	11.27	0.23	0.05
Behaviour Management		667	0.0889	4	11.18	0.89	0.79
Relationship with students		664	0.0885	5	11.13	0.96	0.92
Interest in teaching		621	0.828	6	10.51	0.47	0.22
Evaluation of instruction		568	0.0757	7	8.52	0.914	0.835
Teacher Characteristics		521	0.0695	8	8.34	0.91	0.83
Commitment		481	0.0641	9	8.06	-0.59	0.35
Communication		408	0.0544	10	6.84	0.64	0.41
Total		5965	0.7953		100		

*MIS = Mean Item Score

The ranking in Table 3 shows two of the ten performance indicators that contributed mostly to teacher classroom performance. The strongest was teacher preparation (MIS = 0.0919; 11.56%) and subject matter knowledge ranked second (MIS = 0.0903; 11.35%). Communication, however ranked least (0.0544; 6.84%), only a little variation existed among all the indicators. The 'r' column shows that correlation coefficient of all the ten identified indicators for teacher performance. That is, their relationship to teacher performance. The 'r²' column brings out the coefficients of determination establishing whether the relationships were significant. All correlation coefficient as shown in table 3

were positive except one (teacher commitment) which was negatively correlated with teacher performance. Thus, teachers need to improve in their communicative ability as Okebukola (2005) had already found such a weakness in this aspect of most graduate teachers' classroom performance since the last decade. Similarly, other studies found that the percentage of teachers with lower communicative ability increases over time (Anderson and Carroll, 2008; Guarino, Santibanez, and Daley, 2006). After all, the products of the secondary schools of today without sound communicative skills would be the graduate teachers of the same school level in the next five years.

One other finding that emerged has to do with the extent to which each independent variable was a contributor to student academic achievement after controlling for parental backgrounds, students' characteristics; family structure and supportiveness. The independent variables are: Teacher preparation, knowledge of subject matter, subject matter delivery, teacher characteristic traits, interest in the job of teaching and relationship with students. When these were combined together to determine the percentage each of them contributed to teacher performance, the values shown in table 4 were derived.

Table 4: The ranking of the factors contributing to teacher performance

Factors	GMIS	%
Knowledge of subject matter	0.908	20.12
Teacher Preparation	0.774	17.15
Teacher characteristic traits	0.773	17.13
Subject matter delivery	0.744	16.49
Relationship with students	0.673	14.92
Interest in the job of teaching	0.640	14.18

**GMIS = Group Mean Item Score*

The ten indicators of teacher performance are re-arranged to form the acronym: BEST CRITIC. These indicators are the following: Behaviour management, Evaluation of instruction, Subject matter knowledge, Teacher preparation, Commitment, Relationship with students, Instructional Management, Teacher characteristics, Interest in teaching, Communication; while the pie-chart depicting the relative importance of each indicator to teacher performance is figure III.

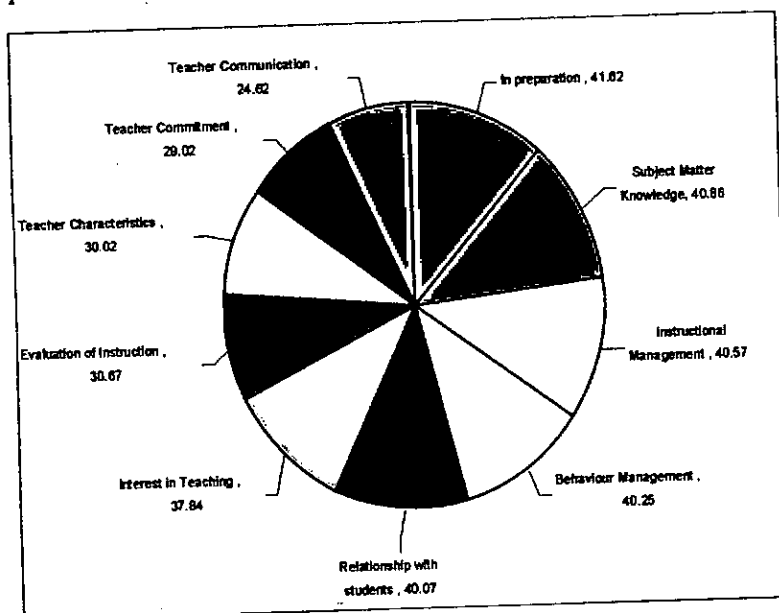


Figure IV: The Pie Chart of the Identified Ten Indicators

It thus means that an effective teacher only is the BEST CRITIC of the teaching-learning process and other school-related matters.

Question 2 *What is the relationship between teacher preparation (pre-service and in-service training) and teacher performance?*

The question sought to find out the relationship that existed between teacher preparation and the composite value of the teacher performance indicators. The result is presented in Table 5.

Table 5: Relationship between teacher preparation and teacher performance

Variable	N	Mean(\bar{X})	S.D	Correlation Coefficient (r)	Coefficient of determination r^2
Teacher preparation	150	4.59	0.838	0.811	0.66
Teacher performance		3.98	0.738		

The results established that teacher preparation correlated strongly ($n = 150$; $\bar{x} = 4.51$; $SD = 0.838$, $r = 0.811$; $r^2=0.66$) with classroom performance. Almost all the respondents ($n=145/96.7\%$) agreed that they took minimum of 20 or maximum of 24 units of Education courses while in training. This is indicative that teacher preparation most especially the initial training was deemed a very important contributor to effective teacher classroom performance. Further analysis shows teacher preparation in this study contributed 11.56% to the success of the teacher (Table 4) showing it as the strongest factor of all the teacher performance variables. Table 6 still emphasize the function of the teachers in classroom as offshoots of their initial preparation while in training and continues training on the job.

Table 6: Results of the Teacher Appraisal Form as Rated by Principals

S/N	JOB PERFORMANCE	A = 4		B = 3		C = 2		D = 1		Total		Rank
		Score	MIS	Score	MIS	Score	MIS	Score	MIS	Score	MIS	
1	Subject matter knowledge.	92	0.66	27	0.26	6	0.09	-	-	122	0.8714	8
2	Class organisation.	84	0.60	33	0.31	-	-	3	0.09	120	0.8571	10
3	Attention to routine matters.	68	0.49	48	0.46	4	0.06	-	-	120	0.8571	10
4	Lesson preparation	100	0.71	30	0.29	-	-	-	-	130	0.9286	3
5	Subject matter delivery.	72	0.51	45	0.43	4	0.06	-	-	121	0.8643	9
6	Leadership and organisational ability.	60	0.43	48	0.46	8	0.11	-	-	116	0.8286	15
7	Type of learning environment.	40	0.29	39	0.37	18	0.26	3	0.09	100	0.7143	20
8	Contribution to school growth.	52	0.37	51	0.49	10	0.14	-	-	113	0.8071	16
9	School-community relations.	60	0.43	48	0.46	2	0.03	3	0.09	113	0.8071	16
10	Stimulation of students' learning.	48	0.34	63	0.60	4	0.06	-	-	117	0.8357	14
11	Interrelatedness of subject fields.	44	0.31	54	0.51	8	0.11	2	0.06	108	0.7714	19
12	Personal appearance.	96	0.69	27	0.26	4	0.06	-	-	127	0.9071	5
13	Imitativeness	88	0.63	30	0.29	6	0.09	-	-	124	0.8857	6
14	Adaptability	112	0.80	15	0.14	4	0.06	-	-	131	0.9357	2
15	Personality profile	60	0.43	30	0.29	18	0.26	1	0.03	109	0.7786	18
16	Relationship with colleagues	108	0.77	24	0.23	-	-	-	-	132	0.9429	1
17	Relationship with students.	80	0.57	36	0.34	2	0.03	2	0.06	120	0.8571	10
18	Hardworking	82	0.51	42	0.27	4	0.06	1	0.03	119	0.8500	13
19	Integrity/discreteness	62	0.69	18	0.17	10	0.14	-	-	124	0.8857	6
20	Interest in courses, seminars/workshops	100	0.71	24	0.23	4	0.06	-	-	128	0.9143	4
	Total	1532	0.5471	734	0.3486	116	0.0829	15	0.0214	2397	0.846	

Group Mean Item Score (GMIS) = 0.8561 = 85.61%

MIS = Mean Item Score

Table 6 presents a picture of how supervisors rated their teachers on most of the functions that the latter perform or the features exhibited by them in the school. On the whole, teachers were rated very highly (score = 132; 94.3%) on relationship with colleagues. Thus, the variable topped the list of rank-ordered Teacher Appraisal Form (Table 6). This indicates that almost all the sampled teachers believed in having a team spirit (esprit de corps) and perhaps sharing ideas with others to produce better quality work. The quality rated second was adaptability of the topics with classroom situation as well as chosen teaching techniques with a total score of 131 (93.6%); followed by subject matter/lesson presentation of 130 (92.9%). No doubt principals (supervisors) had a consensus on the importance of teachers' continued professional development (CPD). It was rated fourth with a total of 128 (91.4%). At the base of the top ten traits were classroom organisation, attention to routine matters and relationship with students – each of which was equally rated and had a total score of 120 (85.71%). These three items were ranked tenth on TAF (Table 6). However, in terms of assigned weight, adaptability, relationship with colleagues, subject matter/lesson preparation and CPD were given greater weight respectively than others.

The group mean item score of 0.8561 (85.61%) proved that the instrument was also effective in rating teacher qualities and consequent performance in classroom operations.

Question 3: What is the contribution of knowledge of subject matter to teacher classroom performance?

Table 7 gives an analysis of the relationship between subject matter knowledge and teacher performance as perceived by supervisors and students.

Table 7: Relationship between subject matter knowledge and teacher performance

Variable	N	Mean(\bar{X})	S.D	Correlation Coefficient (r)	Coefficient of determination r^2
Subject matter Knowledge	150	4.51	0.469	0.767	0.59
Teacher performance		3.98	0.738		

Of the 150 sampled teachers, 133(88.7%) rated subject matter knowledge as very highly important while another 15(10%) considered it as highly important to teacher success in the classroom. There was a strong, positive correlation between subject matter knowledge and teacher classroom performance ($n=150$; $X=4.51$, $r=0.767$; $r^2 = 0.59$). The result is indicative of the inextricable link between the two: the former as a contributor to the latter as perceived by the teachers themselves.

From the ratings (table 6) of the supervisors (vice principals or principals) that filled the Teachers' Appraisal Form (TAF) on the teachers from the 35 sampled schools, 98 teachers were considered as highly proficient (i.e. 65.3%) while another 39 (26%) were considered 'good' with further potential and only 13 (8.7%) were rated as novices who still have much to learn. However, none was considered as severely lacking among them. The Pearson Product Moment Correlation Co-efficient ($r = 0.767$; $p = 0.05$) showed a strong positive correlation between the teachers' subject matter knowledge and its delivery in the class indicating, in general, the two variables move in the same direction. The correlation coefficient showed a high positive association between the two variables. By interpretation, it means that even though the teachers have a profound knowledge of subject matter and substantially delivered it in practice to the students in class it does not

translate to high student performance. However, the instructional methods might not necessarily be the best as to impact greatly on student cognitive achievement.

This strong correlation co-efficient depicting the magnitude of relationship between subject matter knowledge and teacher classroom performance seems to negate Okebukola's (2005a) finding which reported that most of the graduate teachers produced from the universities were shallow in subject matter knowledge and as such incompetent in the teaching of a large number of topics in the subjects. The findings were a departure to general belief that education quality was as a result of teachers' competence in their subject. In addition, they lack practical (laboratory and teaching) as well as computer skills; display poor classroom management and control skills and were unable to communicate effectively. Only in the last factor mentioned (communicative ability) does this study have similar finding ($r=0.64$, $r^2=0.41$) with Okebukola's (2005). A strong confirmation is evident in item 20 of the teacher performance indicator which had the lowest mean ($X = 0.544$) among all the item means.

To sum up, subject matter knowledge (table 3) contributed 11.35% to the teacher classroom performance. It was the second highest contributor to teacher success in the classroom.

Question 4: Is there a relationship between teacher personal characteristics and teacher performance?

The effect of teacher characteristic traits on teacher classroom performance is the main focus here. Some personal traits as personal appearance, initiative, adaptability, enthusiasm, warmth and humour, willingness to help students, flexibility, diligence,

discreetness and a lively interest in the job of teaching as well as possessing a team-spirit are necessary attributes a teacher must manifest to be effective in his professional duties.

Table 8: Relationship between teacher characteristics and teacher performance

Variable	N	Mean(\bar{X})	S.D	Correlation Coefficient (r)	Coefficient of determination r^2
Teacher characteristics	150	3.47	0.673	0.91	0.83
Teacher performance		3.98	0.738		

Table 8 shows that there is a strong positive relationship between teacher characteristic traits and teacher classroom performance, ($X = 3.47/3.98$; $SD = 0.673/0.738$; $r = 0.91$; $r^2 = 0.83$). Also, from the Teacher Appraisal Form (Table 6) the Mean Item Score (MIS) of some attributes of the teacher's personality: personality profile (0.70); adaptability (0.83); personal appearance (0.84) and integrity (0.82) combined to achieve this high teacher success (79.5%) in the classroom.

Table 9: Results of Classroom Observation Scale on Teacher Classroom Performance

Items	N	Rarely			Occasionally			Often			Very Often			Total		
		Score	MIS	%	Score	MIS	%	Score	MIS	%	Score	MIS	%	Score	MIS	%
1 Teacher presentation	35	-	-	-	16	0.23	22.9	45	0.43	42.9	48	0.34	34.3	109	0.78	77.9
2 Clarity of presentation	35	-	-	-	24	0.34	34.3	45	0.43	42.9	32	0.23	22.9	101	0.72	72.1
3 Teacher enthusiasm	35	12	0.34	34.3	12	0.17	17.1	27	0.26	25.7	32	0.23	22.9	83	0.59	59.3
4 Teacher questioning	35	10	0.29	28.6	24	0.34	34.3	27	0.26	25.7	16	0.11	11.4	77	0.55	55.0
5 Rote memory or fact questions	35	1	0.03	2.86	8	0.11	11.4	54	0.51	51.4	48	0.34	34.3	111	0.79	79.3
6 High level or why question	35	6	0.17	17.14	20	0.29	28.6	45	0.43	42.9	16	0.11	11.4	87	0.62	62.1
7 Personal opinion question	35	12	0.34	34.3	20	0.29	28.6	27	0.26	25.7	16	0.11	11.4	103	0.74	73.6
8 Teacher academic feedback	35	6	0.17	17.14	40	0.57	57.1	27	0.26	25.7	-	-	-	73	0.52	52.1
9 Teacher probes, prompts and re-directs	35	16	0.46	45.7	20	0.29	28.8	27	0.26	25.7	-	-	-	63	0.45	45.0
10 Student – student academic interactions	35	15	0.43	42.9	8	0.11	11.4	36	0.34	34.3	16	0.11	11.4	75	0.54	53.6

Scoring rubrics: Rarely = 1; Occasionally = 2; Often = 3; Very Often = 4 M.I.S. = Mean Item Score; Group Mean Item Score

(GMIS) = 0.63 = 63%

Source: Fieldwork.

Teacher enthusiasm as measured by the Classroom Observation Scale (COS) in Table 8 had an overall percentage of 53.3% of the sampled teachers that exhibited such feeling in varying degrees while teaching in class and 51(34.0%) of the teachers confessed the feeling was lacking in their lesson presentation. This kind of lack-lustre teaching could hardly produce any positive result. Yet, other researchers have found that enthusiastic teaching helps students persist at tasks, motivates them and leads to increased learning and satisfaction (Denight and Gall, 1989; Gallagher, 1994; Patrick, Hisley and Kempler, 2000; Wang, Haertel and Walberg, 1993). In support, Good and Brophy (2000) suggest that teacher's enthusiasm has two important dimensions: interest and involvement with the subject matter, and vigour and physical dynamism. Enthusiastic teachers are often described as dynamic, stimulating, energetic and expressive. The behaviour of this category of teachers suggests that they are committed to both students and their subjects.

Teacher's presentation of subject matter with clarity (Table 10) was found to be high (72.1%) showing that it is essential to the total success of their lesson. The questioning techniques of the teacher are also valuable to the overall effectiveness of the teacher in the classroom. As table 8 shows, asking fact-questions to sustain the attention and interest of the students (79.3%), high level or why-questions to test the students' understanding (62.19%) and opinion questions (73.6%) to assess students' level of critical thinking were fair percentages of evaluation in favour of the observed teachers. Table 9 answers question 4 on teachers' characteristics teacher enthusiasm; subject matter knowledge demonstrated in lesson presentation as well as teacher questioning techniques explicate teacher characteristics. Table 10 shows the relative values of all the items in the scale to show the weight of each item in relative terms.

Table 10: Inter Item Ratings of Classroom Observation Scale

Item No.	MIS	MIS Ranking
Teacher presentation	0.77	1
Clarity of presentation	0.70	3
Teacher enthusiasm	0.69	5
Teacher questioning	0.70	3
Rote memory or fact questions	0.54	10
High level or why question	0.63	8
Personal opinion question	0.57	9
Teacher academic feedback	0.66	7
Teacher probes, prompts and re-directs	0.69	5
Student – student academic interactions	0.71	2

Group Mean Item Score = 0.669 = 66.9%; SD = 0.1895

MIS = Mean Item Score

From Table 10, it is evident that students learnt better whatever was presented to them by the teachers. Suffice to say, it could be otherwise if teachers refused to present such topics students would rather not learned. Further analysis showed importance of student – student interactions during the lesson. In other words, every lesson must be learner-oriented but directed by the teacher. Teacher questioning techniques either to introduce the lesson or clarify points during lesson engender clarity of presentation as revealed in table 10 as both items ranked third among all others.

The need to have a neat and tidy appearance as a teacher was expressed by 141 teachers (94%) in Table 6 as essential. A well-dressed teacher who values personal hygiene is likely to attract more students and hence arouses their interests in his/her subjects. The question is: Are the teachers in Lagos State public schools generally well-turned out in their dressing, manner of speech, poise as to challenge/fuel the interests of their students

in them and their subjects? In an age of rising teaching standards it is essential that a teacher be flexible in his/her approach to learning; receptive to new concepts, and most importantly enthusiastic about learning. His positive attitude toward learning might have a positive impact on student attitude toward education in general and in the subject in particular.

In terms of adaptability (Table 6), 80% of the sampled teachers regarded it as a necessary quality and showed they would adapt very willingly to new situations; while another 14% also indicated they would adapt some-what willingly as situations demand. Closely linked with adaptability is the issue of variety of activities to make learning situations more enjoyable to students. From the teachers' supervisors' (principals/Vice principals) reports (Table 6) 62.7% of the teachers always take correct actions without supervision while an additional 28.6% of them usually act on own initiatives with little supervision.

Specifically, the overall percentage of 91.3% of teachers who take initiatives on their own would seem so highly favourable until one considers the fact that the nation's education system is highly centralized and thus, the government dictates the policies operating in schools. Therefore, teachers' initiativeness is hampered by the foregoing – none can operate outside the laid down rules.

Question 5: Does interest in the job of teaching relate to teacher performance?

The question sought to find out whether interest in the job of teaching (for teachers) and in schooling (for students) relate to teacher job performance or not. However, the two variables were correlated and it was found to have a moderate positive correlation coefficient ($N=150$; $r=0.47$) as shown in table 11 below.

Table 11: Relationship between interest in Teaching and Teacher Classroom Performance.

Variable	N	Mean(\bar{X})	S.D	Correlation Coefficient (r)	Coefficient of determination r^2
Interest in teaching	150	4.14	0.837	0.47	0.22
Teacher performance		3.98	0.738		

From table 11 the percentage that interest in the job of teaching contributed to teacher's success in the classroom also was 10.51% showing it as the factor rated the sixth of all teacher performance indicators.

Table 4.12 Students' Rating of Interest in Teaching on Teacher Performance Indicator (TPI)

Rubric	Total Number of Teachers	M.I.S.	%
Very High	63	0.42	42
High	55	0.37	36.7
Average	22	0.15	14.7
Low	10	0.17	6.7
Total	150		100.1

Low = 1 & 2; Average = 3; High = 4; Very High = 5

Table 13 presents the scores of respondents on the scale which is in Appendix D. However, it should be noted that some items are condensed because they address the same issue.

Another indication that most teachers in Lagos state demonstrated a lively interest in the profession was revealed in the TAF (Table 6) rated by school principals which showed 34.3% of the teachers as outstanding and 60% of them were rated satisfactory in the stimulation of students' learning in their subjects. Interest in teaching is also shown in the non-verbal inflections in the teacher's voice when praising a good accomplishment of a student or to a correct answer. Teacher enthusiasm acquiesced to by many teachers (65.7%) in Table 10 as contributing to effective student learning is a surrogate to interest. In the modern world which is a vast sanatorium where virtually everyone is "inside" himself, it takes enthusiastic teaching to bring out the best in students beset with varied problems ranging from social, psychological, emotional issues, interpersonal issues, issues relating to independence most especially in teenagers, to psycho-educational problems. Absent mindedness, health, poor feeding, shyness, introversion, withdrawal, fear of failure, lack of preparation, insufficient academic competencies, would basically inhibit the learning rate of students as there is no interest in what the teachers have planned for the lessons.

Table 13: Student Personal Data Inventory Scores

S/N		N 1200	MIS	Number & Percent Agreement		Ranking	Percent Disagreement
				No	%		%
1	Study habit/attitude to work.		0.8250	990	82.5	5	8.6
2	Meeting deadlines for assignments.		0.9136	1096	91.4	2	17.5
3	Family supportiveness.		0.8504	962	85.04	6	14.96
4	Academic learning time (ALT).		0.8454	1015	84.54	4	15.46
5	Procurement and use of textbooks.		0.8905	1069	89.05	3	10.95
6	TV watching up to 5 hrs daily.		0.4072	489	40.72	8	59.28
7	High esteem for peer opinion.		0.7143	857	71.43	7	28.57
8	Participation in co-curricular activities.		0.9657	1159	96.57	1	3.43

*Group Mean Item Score (GMIS) = 0.802 = 80.2%

* MIS = Mean Item Score

In measuring students' interests in schooling, the researcher used a 15 – item scale scored on a 4-point likert type tagged "Students' Personal Data Inventory (SPDI)". The fifteen items were collapsed into eight for ease of analysis. Four of the 8 items (nos. 1, 2, 4 and 8) used as indices of interest in schooling were study habit, meeting deadlines for assignments, Academic Learning Time (ALT) and participation in co-curricular activities. The results of high percentages of respondents' agreement on these four items – 82.5%, 91.4%, 84.54%, 96.57% respectively (Table 13) showed that the bulk of the students were highly interested in schooling. However, the high percentages' interest did not translate to high performance scores. In any case, that is not surprising since being in a learning situation alone does not guarantee active participation in the same. Other intervening variables might have inhibited students' learning such as intellectual ability, contextual factors, student-teacher interpersonal relationships, uncurbed disruptive behaviours exhibited in the classroom, non-availability of educational resources and learning facilities, unsuitable teaching methods, improper classroom management strategies and negative peer influence.

Question 6: Do differences exist among parental involvement, interest in schooling and classroom environment among the public secondary school types in Lagos State?

The question sought to determine the differences in parental environment, classroom environment and interest in schooling among the secondary school types in Lagos State. School type as it relates to this study refers to the public senior secondary schools marked out by gender: Boys' only, Girls' only and Mixed schools.

Table 14: Differences in Parental Involvement and Classroom Environment among Secondary School Types in Lagos State

Source of variation	Sum of squares	df	Mean Square	F	F-tab.	Sig.
Between groups	33306	3	11102	2.7393	4.07	0.05
Within groups	32423	8	4052.875			
Total	65729	11				

**P < 0.05*

Table 14 shows there were variations in the parental involvement and school environment among the various public secondary school types (boys' only, girls' only and mixed schools) in Lagos State. This is evident in the F-cal (2.7393) which is less than 4.07 (the F-table value) at 3/8 degrees of freedom and 0.05 alpha level.

The schools were asked to rate the relative assistance parents are willing to give their children's schools as well as community involvement in school activities. Questions asked include "How often are parents willing to give assistance to the school? How often are members of the community ready to donate resources towards the school growth?"

Responses to the questions are presented in Table 15.

Table 15: Parental Involvement and Community Participation in Public Senior Secondary School Types

Items	Types of schools						Total MIS	Total %
	Boys Only MIS	Boys Only %	Girls Only MIS	Girls Only %	Mixed MIS	Mixed %		
1 How often do parents come to the school to see to the welfare of their children?	0.56	21	0.89	32.6	0.69	27.1	0.71	27.4
2 How often are parents willing to give assistance to the school?	0.78	29	0.72	26.4	0.65	25.5	0.68	26.3
3 How often are social organisation in the community ready to assist with problems of discipline?	0.89	33.3	0.56	20.5	0.54	21.2	0.57	22.0
4 How often are members of the community ready to donate resources towards the school growth?	0.44	16.5	0.56	20.5	0.67	26.3	0.63	24.3

*Scoring rubrics: Not at all = 1; Rare = 2; Often = 3 * MIS = Mean Item Score.*

Source: Fieldwork.

Table 15 presents the schools' reports on parental involvement which explained the vicarious inclusion of parents and community in the study. Table 15 shows the degrees of parental involvement and other sectors of the community in school affairs. The results also show there are differences in the amount of parental/community involvement in school matters among school types. For instance, in Boys' only schools (n=3; MIS =0.56; 21%) and Girls' only (n=6; MIS = 0.89; 32.6%) and Mixed Schools (n=26; MIS = 0.69; 27.1%), 21%; 32.6% and 27.1% of parents come to the schools to check how their

children or wards fare in their academics in the three types of Lagos State public secondary schools respectively. Furthermore, on the issue of parents' willingness to give assistance to the schools, little variations were found (MIS = 0.78/29%; 0.72/26.4%; 0.65/25.5%) among school types. To sum up, the result shows an average parental involvement and community participation in school matters (22.75% in boys' only; 23.45% in girls' only and 25.9 in mixed schools).

It was not surprising that parental involvement in Boys' only schools was greater (29%) than in the other two types of schools (26.4% and 25.5%) and higher than the average for the three types of schools. The reason being that even though girls are more delicate and more susceptible to social teenage problems than boys, the latter are more prone to causing riots, involved more in secret cults and probably use hard drugs more and likely to be more confrontational to school authorities than the former. In the same vein, the community social organizations saw the need to assist with the problems of discipline more in Boys' only schools (33.3%) than in Girls' only schools (20.5%) or Mixed schools (21.2%).

Table 16 shows the difference among classroom environments in the various school types. There were little variations in all the items on the classroom environment and climate scale among the school types most especially as regards degree of visibility (Boys only = 0.67/18.8%; Girls' only = 0.61/14.7%, Mixed = 0.68/15.6%); suitable traffic patterns (0.56/18.7%, 0.72/17.3%, 0.62/14.3%) for the three types of schools respectively. In terms of relaxed atmosphere, Boys' only schools had an MIS of

0.56/15.7%; Girls' only, an MIS of 0.78/18.8% while mixed schools had an MIS of 0.54/18.4%.

Table 16: Differences in Classroom Environment and Climate among Lagos State Public Senior Secondary School Types

Items	Types of schools									Total n = 35		
	Boys' Only			Girls' Only			Mixed					
	n = 3			n = 6			n = 26					
	Score	MIS	%	Score	MIS	%	Score	MIS	%	Score	MIS	%
1 Degree of visibility	6	0.67	18.8	11	0.61	14.7	53	0.68	15.6	70	0.67	15.8
2 Suitable traffic pattern	5	0.56	15.7	13	0.72	17.3	48	0.62	14.3	66	0.63	14.8
3 Materials are ready	3	0.33	9.3	8	0.44	10.6	33	0.42	9.7	44	0.42	9.9
4 Students are task oriented	5	0.56	15.7	12	0.67	16.0	50	0.64	14.7	67	0.64	15.06
5 Consistently enforced work standard	4	0.44	12.4	9	0.50	12.0	51	0.65	14.9	64	0.61	14.4
6 Relaxed pleasant atmosphere	5	0.56	15.7	14	0.78	18.8	62	0.80	18.4	81	0.77	18.0
7 Teacher listens to students	4	0.44	12.4	8	0.44	10.6	42	0.54	12.4	54	0.51	12.0

Scoring rubrics: Not at all = 1; Rare = 2; Often = 3

**MIS. = Mean Item Score*

Source: Fieldwork

From the computations, the Group Mean Item Scores (GMIS) for the three types of schools are as follow:

$$GMIS (Boys' Only) = 0.51 = 50.8\%$$

$$GMIS (Girls' Only) = 0.60 = 59.5\%$$

$$GMIS (mixed) = 0.61 = 60.7\%$$

In summary, it was found that all the 35 sampled schools irrespective of gender had a moderately fair classroom environment and climate (Boys' only 50.8%; Girls' only =59.7%, Mixed = 60.7%) and a total MIS = 0.607 equivalent to 60.7%. In terms of

student engagement in the classroom, it was found to be 15.75%, 16%, 14.7% in Boys' only, Girls' only and Mixed schools respectively.

Table 17: The MIS item score of Rank-Ordered Classroom Environment and Climate Scale

Item No.	MIS	Ranking of the MIS
Degree of visibility	0.57	4
Suitable traffic pattern	0.57	4
Materials are ready	0.53	7
Students are task oriented	0.68	3
Consistently enforced work standard	0.70	1
Relaxed pleasant atmosphere	0.70	1
Teacher listens to students	0.54	6

*Group Mean Item Score (GMIS) = 0.601, Standard Deviation (SD) = 0.0734

*MIS = Mean Item Scores

The classroom environment and climate measure used in this study showed a high percentage of the sampled schools as having conducive learning and climate (60.1%). Of these percentage responses, 33% claimed it to be moderately conducive while 19.5% perceived it to be highly conducive with only 7.6% responses showing the learning environments.

Thus, it became apparently clear that the situation in the state public schools might not be as bad as being imputed; contrary to the public opinion thereby showing that the government is aware of the importance of the environment's contribution to raising the

level of student teacher interactions in the classroom and consequently, the student academic achievement.

However, there is much room for improvement to bring the state's schools to acceptable standards.

Question 7: Are there significant differences in student academic performance among public senior secondary school types in Lagos State?

To answer question 7 which investigated if there were significant differences in students' academic achievement among the Lagos State public secondary school types, One-way Analysis of variance was computed. Table 18 shows the results of this operation. The calculated F-ratio was 978.05 and the table value of F at 2175 degrees of freedom = 3.09. It thus showed the calculated F- ratio as significantly higher than the F-table value. Therefore, the results showed that the means of the students' performance scores were significantly different among all the secondary school types.

Table 18: Differences Between the Means of Students' Academic Performance Among Lagos State Public Senior Secondary Schools Types

Source of variation	Sum of squares	df	Mean square	F	F-tab.	Sig.
Between groups	44950.67	2	22475.34	978.05	3.09	0.05
Within groups	1723.48	75	22.9797			
Total	46674.15	77				

*P < 0.05

In order to ascertain the magnitude of variations the t-test statistics was used. Thus, between Boys' only and Girls' only schools, there was found little differences in the

student performance: $t\text{-cal} = -0.0497$; $df = 7$; critical $t = 2.365$, $P < 0.05$) but not statistically significant. Thus, the null hypothesis was accepted as shown in Table 18.

Table 19: Differences in student Academic Achievement by school Type

School Type	N	\bar{X}	SD	t-cal	df	Critical t
Girls' only	6	36.78	4.644	-0.0497	7	* 2.365
Boys' only	3	37.09	9.073			

* $P < 0.05$

Table 19 shows the $t\text{-cal}$ of -0.0497 which is less than the value of critical t (2.356) at 0.05 alpha level showing that the two means were statistically significantly different.

To further strengthen the argument that mass failure of students in most subjects might not be attributed to the teacher's ineffectiveness in handling their subjects, the $t\text{-test}$ computed in Table 20 to determine whether there were differences in academic performance across Educational Districts showed significant differences.

Table 20: Differences in Teacher Performance across the Education Districts in Lagos State.

Source of variation	Sum of squares	df	Mean square	F	F-tab.	Sig.
Between groups	22797936.5	2	11398968.25	-15.03	6.61	0.05
Within groups	-22751262.4	3	-758375.13			
Total	46674.1	5				

* $P < 0.05$

The $F\text{-cal} = -5.01$ in table 20 while the $F\text{-tab} = 6.61$ at 2/3 degrees of freedom with $p < 0.05$. That the value is in the negative does not diminish the value, it only shows direction of the differences. The result shows ($F\text{-cal} = -15.03 > F\text{-tab} = 6.61$) that significant variations in the performance of teachers across the Education Districts in Lagos State

not unconnected with the conditions of service prevalent in those districts. Majority of the schools have students with homogenous characteristics, life style, socio-economic backgrounds and exposed to the same school culture. The 'rub-off' effect expected of the few students from elite homes is subsumed in the effects of larger population of indigent students. In addition, there is no reading culture engendered in today's children. To worsen the situation, the society no longer pays premium on hardwork. So, students would rather vote for "expo" than study hard to pass examinations.

The overall Education Districts' averages in Table 21 showed that students from each of the six Districts were performing below average percent in all the three core subjects; although there were performance differentiations from school to school. By this, it means that few schools performed above average in Biology, English and Mathematics most especially, the Model Colleges and the upgraded schools which operate the boarding system. Education District II had the highest average of 38.9%; followed by Education District V and Education District III with 36.9% and 36.5% respectively.

The Districts' averages are outlined in Table 21.

Table 21: Education Districts' Average Students' Performance Scores in the Core Subjects

Education District	Former LEDs	Average (%)
I	Agege, Alimoso, Ifako/Ijaye	29.3
II	Ikorodu, Kosofe, Somolu	38.9
III	Epe, Ibeju/Lekki, Etiosa, Lagos Island	36.5
IV	Apapa, L/Mainland, Surulere	33.8
V	Badagry, Ajeromi/Ifelodun, Amuwo Odofin, Ojo	36.9
VI	Ikeja, Mushin, Osodi/Isolo	35.4

Thus, the state average was a paltry 35.13%. It is evident that all stakeholders in education most especially the students need to gear up if the state average were to be raised to acceptable level.

However, the results cut the expected picture even though it is far from the ideal since management of the schools with boarding system always ask parents to pay for extra lessons to consolidate class work and keep students busy for some hours after school time. Day students majorly lack in this regard as many have to be involved in house chores or small scale businesses after school.

Table 22: Differences in student academic achievement by school types

Type of school	N	\bar{X}	SD	t-Cal	df	Table Value
Boys' only	3	37.09	9.073	0.998	27	*2.052
Mixed schools	26	33.9	8.564			

*p < 0.05

From table 22, the result shows that a statistically significant difference exists in the performance of students in boys' only and mixed schools ($t_{cal} = 0.998$; $df = 27$; critical $t = 2.052$ at 0.05 alpha level). Similarly, it was found that there was a significant difference between the student academic performance of those in girls' only and boys' only schools.

In answering the question: "what relationship exists between the teacher performance and student academic achievement?" the correlation co-efficient was determined by computing the 'r' of TPI scores and student academic performance scores across school types. The result shows that teacher performance had a strong negative correlation with student academic performance in this study ($r = -0.679$). Thus, $r^2 = 0.46$ which means that teacher performance contributed 67.9% to student achievements gains.

It is thus evident from the correlation co-efficient $r = -0.679$ that teacher performance was responsible for 67.9% of the student academic achievement in this study. This high percentage of teacher ineffectiveness in the classroom mirrors the real life experiences in the Lagos State public secondary school system.

Hypothesis Testing

Hypothesis 1: *There are no significant differences among the ten indicators of teacher performance.*

Table 23: Differences among teacher performance indicators

Source of variation	Sum of squares	df	Mean square	F	F-tab.	Sig.
Between groups	17745.5	8	2218.19	0.0768	2.31	N.S
Within groups	779548.5	27	28872.17			
Total	797294	35				

* $P < 0.05$

From table 23, there indeed were no statistically significant differences among all the teacher performance variables since the F-cal (0.0768) was lower than the value in the F-tab (2.31) at 8/27 degrees of freedom and 0.05 alpha level. Thus the null hypothesis was sustained.

Table 24: Correlation Matrix showing relationship among the Indicators of Teacher performance

Teacher	TPR	SMK	IMT	BMT	RWS	INT	EVI	TCH	COM
Teacher Preparation	1	.342**	.598**	.578**	.272**	.394**	.314**	-	-.197*
Subject Matter Knowledge	.342**	1	.458**	.388**	.181*	.210**	.462**	-	-.223**
Instructional Management	.598**	.458**	1	.485**	.459**	.321**	.457**	-	-.189*
Behaviour Management	.578**	.388**	.485**	1	.257**	.353**	.385**	-	.261**
Relationship with Students	.272**	.297**	.459**	.257**	1	.238**	.297**	-	-.248**
Interest in the job of teaching.	.394**	.210**	.321**	.353**	.238**	1	.374	-	-.108
Evaluation of instruction	.314**	.462**	.457**	.385**	.297**	.374**	1	-	-.183*
Teacher characteristics	-	-	-	-	-	-	-	1	-
Communication	-.197*	-.223**	-.189*	.261**	-.248**	-.108	-.183*	-	1

*P<0.05

**P<0.01

Key:

TPR = Teacher Preparation

SMK =Subject Matter Knowledge

IMT = Instructional Management Time

BMT = Behaviour Management

RWS = Relationship with Students

INT = Interest in the Job of Teaching

EVI = Evaluation of Instruction

TCH = Teacher Characteristics

COM = Communication

CMT = Commitment

The results in Table 24 show that the ten indicators of teacher performance correlated with one another. However, only a few of these relationships were strong while many were moderate and just as many were weak relationships.

Table 24 displays the correlation coefficient of the relationships among the variables of the study. The analysis shows that most of the observed For instance Teacher Preparation had a strong, positive and significant ($r = .578$; $P < 0.05$) ($P < 0.05$) relationship with Behaviour Management and ($r = .598$; $P < 0.05$) with instructional Management Time respectively.

Hypothesis 2: There is no significant relationship between teacher preparation and teacher performance in Lagos State Public Senior Secondary Schools..

Table 25: Relationship between teacher preparation and teacher performance

Variable	N	Total Scores	MIS	Correlation Coefficient r	Coefficient of determination r^2	t-cal	df	Critical T	Decision
Teacher preparation	35					7.99	33	2.038	Reject
Teacher performance	35	7500	0.919	0.811	0.66				

* $P < 0.05$

* MIS = Mean Item Score

Table 25 shows the result of the t-test to test hypothesis of a strong positive relationship between teacher preparation and teacher classroom performance ($r = 0.811$; $r^2 = 0.66$).

The null hypothesis was thus rejected because the t-calculated value of 7.99 at $df = 33$ was significantly higher than the critical t-value of 2.038 at 0.05 alpha level.

Hypothesis 3: Subject matter knowledge is not significantly related to teacher performance.

Table 26: Relationship between Subject Matter Knowledge (SMK) and Teacher performance

Source of variation	N	Total Score	MIS	Correlation Coefficient	Coefficient of Determination	t-cal	df	Critical t
Subject Matter knowledge		677						
Teacher Performance	35	7500	0.0903	0.767	0.59	*6.88	33	2.038

*P < 0.05

*MIS = Mean Item Score

The results in Table 26 show that the t-test computed whether there was any significant difference between the means of subject matter knowledge and teacher performance was positive and statistically significant. Therefore, the null hypothesis was rejected in favour of the alternative. In other words, there was a statistically significant relationship between subject matter knowledge and teacher performance.

Hypothesis 4: There is no significant relationship between teacher personal characteristics and teacher performance.

Table 27: Relationship between teacher characteristics and teacher performance

Variable	N	Total Scores	MIS	Correlation Coefficient r	Coefficient of determination r ²	t-cal	df	Critical t	Decision
Teacher characteristics		521							
Teacher performance	35	7500	0.0695	0.91	0.83	*12.679	33	2.038	Reject

* P < 0.05

In like manner, the test of significance of relationship between teacher characteristics and teacher performance proved very significant indeed ($r=0.91$, $r^2 = 0.83$). Therefore, the

null hypothesis was rejected in favour of the alternative hypothesis: There was a very significant relationship between teacher characteristics and teacher performance.

Hypothesis 5: Interest in the job of teaching is not significantly related to teacher performance.

Table 28: Relationship between Interest in Teaching and Teacher Performance

Variables	N	\bar{X}	SD	r	r^2	t-cal	df	t-critical	Decision
Interest in Teaching	35	4.14	0.837	0.47	0.22	6.474	148	1.96	Reject
Teacher Performance		3.98	0.738						

*P < 0.05

In testing the hypothesis at 0.05 alpha level, it was found that there was a moderately positive correlation between interest in the job of teaching and teacher performance ($r = 0.47$; $r^2 = 0.22$). The finding is a true picture of what was observed during the fieldwork; an apathy not unconnected with the conditions of service in schools which have worsened and consequently affected teachers' commitment to duty. It was thus revealed that even a passionate person with limited ability can out-perform a passive person with great ability for the simple fact that passionate people act with boundless enthusiasm.

To buttress this assertion, researchers (Cruickshank, et al, 2007; Kerry and Widing, 2004) have found that there is a positive correlation between self-confidence and achievement. The more you believe in yourself, the more you are able to accomplish. From the result, the null hypothesis was rejected.

The result was further strengthened by computing the t-test to check for significance level and the t-cal was 6.474 which was greater than the critical t value of 1.96 at $p < 0.05$. It thus confirmed that interest in teaching statistically significantly related to teacher performance showing that interest in whatever one is doing contributes to the success of the outcome.

The results revealed that the capacity of the ten identified indicators most especially (interest in teaching and profound knowledge of subject matter) to predict teacher performance could not have happened by chance. This finding is in consonance with previous researchers' findings (Odunko and Adeyemo, 1999; Kim and Robner, 2002; Balkcom, 2002 and Roth, 1998).

The significant impact of interest in teaching on teacher performance is best understood when it is realized that the more you believe in yourself (self-efficacy), the more you are able to accomplish. However, the majority of teachers in schools today did not enter into the profession out of personal interest but rather to eke out a living and as a stepping stone to better employment. Yet, it later dawned on them that there was no better job anywhere as a result of the high rate of unemployment. Hence, they had to stay on teaching, and these teachers eventually developed situational interest probably from interpersonal relationships with others on the job or from a sense of accomplishment or the reality of having spent a number of years, that is, years of teaching experience.

Hypothesis 6: There are no significant differences in parental involvement, interest in schooling and classroom environment among all types of Lagos State Public Secondary schools.

Table 29: Differences in parental involvement and classroom environment among secondary school types in Lagos State

Variables	N	\bar{X}	SD	t-cal	df	Critical-t	Decision
Parental involvement	35	0.381	0.108	-27.5	33	*2.038	Accept
Classroom environment		0.601	0.0734				

* $P \leq 0.05$

Table 29 shows that there are no significant differences in parental involvement and classroom environment among Lagos State public secondary schools. The t-cal (-27.5) at $df = 33$ is lower than the critical t (2.038) at 0.05 level of significance, which shows that the difference is in a negative direction. In the light of the foregoing, the null hypothesis (H_0) is thus accepted.

Table 30: Differences in parental involvement by school types

Type of school	N	\bar{X}	SD	t-cal	df	Critical-t	Decision
Girls' only	6	36.78	4.644	-12.004	34	* 2.024	Accept
Boys' only	3	37.09	9.073	-4.348	31	*2.040	Accept
Mixed	26	33.90	8.564	-8.011	54	*2.006	Accept
Total no of sampled schools	35	0.381	0.108	-27.500	48	*1.853	Accept

* $P < 0.05$

Table 31: Differences in classroom environment by school types

Type of school	N	\bar{X}	SD	t-cal	df	Critical-t	Decision
Girls' only	6	36.78	4.644	-10.14	25	* 2.060	Reject
Boys' only	3	37.09	9.073	-34.29	21	* 2.080	Reject
Mixed	26	33.90	8.564	-5.83	44	* 2.013	Reject
Total no of sampled schools	35	0.601	0.0734	-27.50	48	* 1.853	Reject

* $P < 0.05$

From Tables 29, 30, 31, it is clearly evident that there are no statistically significant differences between parental involvement and classroom environment among the Lagos State public senior secondary schools. The test for significance at $p < 0.05$ alpha level using the t-test statistic revealed very insignificant differences among the schools on both factors. Therefore, the null hypothesis is thus accepted as shown in Tables 29, 30, 31 for details.

For the interest in schooling scale, students' attendance at school and classes was used on the one hand, while parents' visits to school to check their children's welfare at school (during open day) and their contributions to school growth were measures of parental involvement in school matters. For instance, donations made to school development, participation in speech and prize-giving / sports days, donation of books or trophies, attendance at PTA meetings are indices of parental involvement.

Three patterns of attendance were revealed by this study. One, those students who always come to school late and leave by break-time tagged 'nine-elevens', the ones who only show up at will nicknamed 'the j-fives' and those who come to school, answer the roll-call at the beginning of the school day but never stay in class for lessons. Many of

these students leave school for eating joints, hide-outs to watch pornographic films, organize crisis with other drop-outs, etc.

Female students too have their own escapades they indulge in. For example, leaving the school (or not even attending at all) to keep appointments with boy-friends. These problems were aggravated by the multi-school complexes without any demarcation. To worsen the situation, the advent of World Wide Web which should have been a source of increase in knowledge is bastardized by the students. They surf the 'net' not for academic purpose but for watching pornographic pictures culminating into lack of interest in academic work and consequently poor academic performance.

Hypothesis 7: There are no significant differences in the student academic performance among public secondary school types in Lagos State.

Table 32: Differences in the student Academic Achievement by School types

Type of School	N	\bar{X}	SD	t-cal	df	Critical-t	Decision
Girls only	6	36.78	4.644	0.0497	7	*2.365	Accept
Boys only	3	37.09	9.073				

* $P < 0.05$

There was no significant difference between the performances of students in both types of schools (Girls' only/Boys' only) as the t calculated (0.0497) is less than table value of critical t (*2.365) in Table 32 at 0.05 alpha level. Therefore, the null hypothesis is accepted.

Table 33: Differences in the student Academic Performance by School type

Type of school	N	\bar{X}	SD	t cal.	df	Critical t	Decision
Girls' only	6	36.78	4.644	1.74	30	* 2.042	Accept
Co-educational	26	33.90	8.564				

*P < 0.05

The results as presented in Table 33 show also that there was no significant difference between the performance of students in Girls' only schools and co-educational schools. Thus, the null hypothesis is accepted.

Table 34: Differences in the Student Academic Performance by School Types

Type of school	N	\bar{X}	SD	T cal.	df	Critical t	Decision
Boys' only	3	37.09	4.073	0.998	27	*2.052	Accept
Co-educational	26	33.90	8.564				

*P < 0.05

In like manner as for the first two types of schools (Boys' only/Girls' only and Girls' only/Mixed), the test for significance in Table 34 reveals no significant difference between the academic performance of students in Boys' only and Mixed schools at 0.05 alpha level.

In order to ascertain whether student performance relates to teacher performance and to test for level of significance, the Pearson Product Moment Correlation Co-efficient was used. The results of the three types of schools in relation to teacher performance are presented in Table 35.

Table 35: The Relationship between Teacher Performance and Student Performance

Variables	N	\bar{X}	SD	r	r^2	t-cal	df	t-critical	Decision
Teacher Performance	35	77.91	8.83	-0.679	0.46	-41.494	68	1.669	Accept
Student Performance	35	73.13	10.50						

*P < 0.05

The result shows a strong negative relationship between student performance and teacher performance in this study. Therefore, the correlation between student academic performance and teacher performance is a strong negative one ($r = -0.679$) showing an inverse relationship between student academic performance and teacher performance. Thus, an increase in X (teacher performance) seemed to result in the exact decrease in y (student academic scores). Also when the t-statistic was used to test the significance level, it was found to be a negative one ($t\text{-cal} = -41.494$) which is less than the t-critical value at ($P < 0.05 = 1.669$; $df = 68$) and thus, the hypothesis is accepted.

Since the calculated t (-41.494) is less than the critical t (1.669; $df = 68$), then there truly was no significant difference between the two means.

Table 36: The differences in overall student performance among all school types

Variables	N	\bar{X}	SD	r	r^2	t-cal	df	t-critical	Decision
Unisex schools	9	36.78	4.644	0.2321	0.0539	1.3914	33	2.038	Accept
Mixed Schools	26	33.90	8.564						
Total	35	35.34	6.604						

*P < 0.05

The t-test statistics computed to test for significance if there were any differences in overall student performance among all school types showed there were significant differences among them.

This seeming change has come about as a result of the additive impact of other better student performance in the other two subjects (Economics and Yoruba): Students' scores in these two subjects were higher than in the three core subjects. Furthermore, the ANOVA performed on the multiple regression of these independent variables yielded an F-ratio value of 12.032 found to be significant at .05 level.

Table 37: Multiple Regression Analysis on Teacher Performance

Multiple R (Adjusted)	.141
Multiple R ² (Adjusted)	.129
Standard Error of the Estimate	1.009

Analysis of Variance					
Model	Squares	df	Mean square	F	Sig.
Regression	24.496	2	12.248	12.032	.000
Residual	149.644	147	1.018		
Total	174.140	149			

Table 37 shows the independent variables (teacher preparation, subject matter knowledge, teacher characteristics, instructional management time, behaviour management, evaluation of instruction, interest in teaching, teacher commitment, communication and relationship with students) when pooled together have significant effect on teacher performance. The values of R (adjusted) = .141 and R² (adjusted) = .129

while the analysis of variance performed on multiple regression yielded an F-ratio of 12.032 which is significant at .05 level.

Table 38: Relative contributions of the predictors to students achievement

Model	Unstandardized Coefficients		Standardized Coefficients	t-cal	Sig.
	B	Standard Error	Beta		
Constant	1.684	.541		3.113	.002
Interest in Teaching	.278	.081	.267	3.435	.001
Subject Matter Knowledge	.302	.107	.219	2.811	.006

* $P < 0.05$

Predictors: (1) Interest in teaching (2) Knowledge of subject matter.

In terms of magnitude, interest in teaching was shown as having made the most contribution to the prediction of teacher performance (Beta = 0.267, $t = 3.435$, $p = .001$) as evidenced in table 38. Another variable that made significant contribution to the prediction was subject matter knowledge (Beta = .219; $t = 2.811$; $P = .006 < .005$).

The foregoing analyses demonstrated that 12.9% of the variance in teacher performance is accounted for by the linear combination of these two independent variables. In the correlation matrix, it might appear that interest in teaching made little contribution, it was however significant. High rate of students' accomplishments may generate heightened interest in teaching which in turn may have spiralling effects on students' interest in schooling. Essentially, therefore, teacher commitment could positively be impacted by this symbiotic relationship.

From the foregoing, it is possible to know the Education Districts whose teachers meet the set targets, or exceeding the expectations or otherwise. For the purpose of clarity, the teacher performance rubrics are given below.

Table 39: Description of teacher performance rubrics with scores in percentages

Description	Performance Rubrics	Percent Range	HOD's Rating of Teachers	Students' Rating of Teachers
Very High	Exceeds Expectation	85-95	68	29
High	Meets Expectation	67-84	45	85
Average	Needs Assistance	50-66	15	34
Low	Unsatisfactory	38-49	22	2

Eighty-five per cent of the state teachers were judged as being effective in their classroom operations. Of these, 45.3% were constantly very effective (exceeds expectation) while 30% were meeting expectations always and an additional 10% performed at an average level. Those teachers that performed at an average level need assistance from veteran teachers through peer mentoring. The remaining 14.7% of the sampled teachers were found to be ineffective in their classroom performance. However, the two categories of raters differed in the assessment of the teachers.

In terms of the analysis of teacher performance by subject, 60% of the state's English Language teachers were found to be exceeding expectations in their classroom performance. An additional 15% were discovered to meet expectations (right on target) in classroom operations, about 15% were found to be performing a little less than the expected standards and only need assistance. Hence, only 10% were consistently

exhibiting unsatisfactory performance in English language classes whereas a slightly higher percentage (12%) of the Mathematics teachers were consistently unsatisfactory in classroom performance. This level of severed ineffectiveness could be attributed to a sizeable number of teachers that employed teaching strategies unsuitable to the instructional materials on a regular basis. For instance, teachers who are fond of teaching the concepts to students without allowing student participation in the lessons (no feedback) let alone remediation or in whose class teaching for critical thinking is foreign cannot be effective, for example, asking high order (why) or opinion questions from the students.

Discussion of Findings

The discussion of the findings is done under the following sub-headings: Relationship between each of teacher preparation, subject matter knowledge, instructional management time, behaviour management, interest in teaching, teacher characteristics, relationship with students, evaluation of instruction, commitment and communication with teacher performance. All variations in teachers' qualification, gender and teachers' experience and their relative impact on student academic achievement were considered.

Relationship of Teacher preparation with teacher classroom performance

Teacher preparation in this study contributed mostly to teacher classroom performance (11.56%). It thus confirmed that pedagogical skills are essential to overall effectiveness of the teacher. After all, it is while in training that prospective teachers learn about child development and their attributes, teaching skills, curriculum development, management and control of classroom operations with interpersonal skills.

The same trend (n=141/94.3%) was observed among the teacher-participants who positively responded that attendance at and an active participation in courses, seminars and workshops would surely contribute to their professional development and help them perform more effectively in the classroom. There is indeed no doubt about this assertion since new approaches, novel strategies of teaching and learning keep evolving and a good teacher has to keep abreast of these innovations to be productive as well as useful to his/her students and employers. In addition to this high percentage, a few more teachers concurred partially that attending courses, seminars and workshops is essential to professional development.

The above finding is in line with other researchers' (Okpala and Ellis, 2005; Shaeffer, Epting, Zion and Buskit, 2003; Kane, Sandretto and Heath, 2004; Crumbley, Henry, and Kratchman, 2001) who have examined students' perceptions of effective college instructors. Specifically, using students' perspectives as their data source, Crumbley, Henry, Kratchman (2001) reported that students' identified instructor traits likely to affect positively students' evaluations of college instructors and these include teaching style (88.8%), presentation skills (89.4%) enthusiasm (82.2%), preparation and organization (87.3%) and fairness in grading (89.8%).

Shaeffer, Epting, Zion and Buskit, (2003) found strong similarities among the groups in their study when participants identified and ranked what they believed to be the ten most important qualities representing effective college teaching. Although specific order of qualities differed, just as in the present study where all the four groups of teachers (untrained, trained, untrained with higher degrees and trained with higher degrees)

agreed on eight of the top ten traits. These are: relationship with colleagues (94.3%), Adaptability (93.6%), Interests in Courses, Subject Matter/Lesson Preparation (92.9%), Seminars (91.4%), Personal Appearance (90.7%), Initiabiveness with Integrity and Discreetness (88.6%), each of Class Organisation, Subject Matter Knowledge, Attention to Routine Matters was 87.14%, subject Matter Delivery (86.4%) and relationship with students (85.7%) at the base of the top ten as revealed in the results of the Teacher Appraisal Form (Table 6).

However, teacher preparation does not end with initial training period or attendance at seminars but include the preparation teachers need to make for the lesson periods such as preparing functional lesson notes, making charts, drawing diagrams, selecting which teaching method would suit the topics at hand and reading up the topics if he/she were to lead the class discussions very well. It is in this area some teachers need to gear up because from classroom observations, only a few of the teachers use meaningful teaching aids (diagrams, charts, concrete objects, maps, etc).

Relationship Between Subject Matter Knowledge and Teacher Performance

The variable also found to be related to teacher performance was subject matter knowledge. In this study, the correlation coefficient of this variable with teacher performance was a positively strong one ($r = 0.811$; $r^2=0.66$). In Darling-Hammond's review of some studies concerning the teachers' scores on subject matter tests of the National Teacher Examinations (NTE), the report was that findings showed no consistent relationship between this measure of subject matter knowledge and teacher performance as measured by student outcomes or supervisory ratings. She further stated that most

studies showed small, statistically insignificant relationship both positive and negative (Darling-Hammond, 2000).

However, it makes sense that knowledge of the material to be taught is essential to good teaching, but also that returns to subject matter expertise would grow smaller beyond some minimal essential level which exceeds the demands of the curriculum being taught. In addition to the ability to create and adopt instructional strategies, strong research support has linked student learning to variables such as teacher clarity, enthusiasm, task-oriented behaviour, variability of lesson approach and student opportunity to learn criterion. In line with the findings of Rosenshine and Furst, Darling-Hammond, Wise and Pease, Good and Brophy (Darling-Hammond, 2000c) that teachers' abilities to structure material, ask high-order questions, use students' ideas, and probe students' comments have also been found to be important variables in what students learn, (Fuller, 2000; Felter, 1999; Goldhaber and Brewer, 1999). This present study has similar findings (Table 9). Other findings in support of the foregoing abound in the extant literature (Jones, 1999) that years of experience also were not a contributing factor to performance.

Relationship between teacher characteristics and teacher performance

Cruickshank, Jenkins and Metcalf (2009) counsel teachers to develop their own unique teaching persona: one that will maximize each teacher's ability to make positive connections with his/her students. These authors categorized eight personal attributes into three broad headings:

- a. Motivating personality encompassing enthusiasm, variety, warmth and humour.

- b. Orientation toward success which has at its core the expectation of success (self efficacy), setting goals of achievement
- c. Professional demeanor with its focus on helping students to learn.

These three groups of attributes are highly interrelated. For example, being prepared for class conveys confidence, builds credibility, makes the classroom atmosphere business-like, enables teachers to more easily adapt their instruction to students' needs.

Table 9 shows the combined effect of the classroom interactions among students (53.6%) on the one hand and student-teacher relations (52.1%) on the other hand. Teacher enthusiasm in Table 9 (59.3%) had definitely stimulated the students' interest in schooling. Teacher's alertness to students' problems (45%) and general class control are ingredients in classroom organization. An effective teacher therefore emerges as he/she harnesses these various aspects to a greater advantage without necessarily applying corporal punishment. In fact, the above assertion lends credence to teacher classroom presence as an essential ingredient in class management.

Further still, interest in schooling could be fostered through classroom administration. Classroom administration deals with how a teacher organizes his/her class to achieve the best result. It is thus not only a matter of space, educational facilities but how one utilizes these assets as well as the human resources (students and support staff) to maximum effect in classroom operations. Some would use older students or the class captains as support staff. A lesson class could be divided into groups of four/six students with one member of the group being the leader.

It also involves how a teacher shares his/her time for the different aspects of his/her lesson. How many minutes does the teacher use on introduction of the lesson? How many minutes does he take to ask lower order questions (fact questions), high level or why-questions, in prompting/probing and redirecting students as well as allowing student-to-student academic interactions? All these have been found to have additive impact on students' learning

Cruickshank, Jenkins and Metcalf (2009) suggested motivating personality as one of the broad categories of teachers' personal attributes that would help maximize the teachers' ability to impact students' learning. In essence, these two personality profiles (Items 14 in Table 6) which emerged in this study as the more favourable with teachers might be confirming their assertion: the investigative i.e. analytical, curious and independent (42.86%) and the social teacher described, as sociable, resourceful, self motivated, attentive to others' needs and enterprising (28.6%). The picture is that the bulk of the state's teachers are of motivating personality, committed to duties and are willing to help their students learn effectively as rated by their supervisors. This finding supports some previous studies' findings in this regard (Jung, 1988; Gordon and Yocke, 1999).

It is also interesting to note that principals perceived teachers in their schools as being co-operative. In actual fact, these supervisors' ratings showed relationship with colleagues as of top priority – ranked first among all other teacher variables (Table 6). This is not surprising since the teaching job is a collaborative team-work. None can afford to stay aloof from others in this profession. Seventy-seven percent of them were rated as being always friendly, cooperative and well-mannered with the remaining 22.9%

rated as usually friendly and cooperative. To corroborate the veracity of this rating, 93.9% of the teachers were rated highly on interests in courses, seminars and workshops showing that the teachers perceive rightly their job as a collaborative, participatory one where each learns from the other. This is a pointer to the fact that peer mentoring is very desirable among teachers.

However, relationship with students was ranked tenth on Teacher Appraisal Form (Table 6) indicating that principals' expectation of their teachers in this area was much higher than what really obtained in the state's public schools. Fifty-seven percent of them were rated as being always very friendly with their students while another 34.3% teachers were shown to be friendly at times. This latter category could be more often than not unfriendly with students since, there was no way to define "at times" than 'sometimes' which can be translated to mean once in a while which is far from the expectations of all other stakeholders of them.

The pastoral nature of the teaching job should underpine the relationship between the teacher and his students. In that case, almost all the teachers rather than a bit above average percent should have been learner-friendly. Or how does one get another to listen to his view if there is no relationship let alone agree with it as to disseminate the same to others. Care and concern (empathy) is the bedrock of any relationship that would produce good results. Students with both academic and social problems are not likely to benefit from such a group of teachers who put their students at arm's length not even the academically sound would tolerate rebuff from their teachers. From the foregoing, it did not come as a surprise that students' performance was less than average since student-

teacher interactions were close to the barest minimum. Commitment to students and teaching would raise students' achievement even if it would not be sufficiently high.

In this study, it should be noted that establishing relationship between two variables, for example, teachers' performance and students' academic achievement does not in anyway signify causality of the association. This argument is inferred from the caution by researchers (Runyou, Haber, Pittenger and Coleman (1996) that "... a correlation between variables does not allow us to claim that the values of one variable cause changes in the values of another variable" (p. 18).

Relationship between Interest in Teaching and Teacher Classroom Performance

There are indicators of this sub-scale (Table 12) showing that many of the teachers, if not all, have demonstrated unalloyed interest in the job of teaching. Some of these indicators are couched in statements like; "I have interest in the job of teaching"; "I give assignments and mark them promptly"; "I give extra lessons without remuneration"; "I have interests in courses, seminars and workshops," etc. A high percentage ($n = 142/94.3\%$) of the sampled teachers were rated high by both students and supervisors on these indicators. A priori assumption was made of the relationship between the interest in teaching and teacher classroom performance. Interest in the job matters so much because none can assume the position of "in loco parentis" if such a person was not interested in the job. It is a demanding and rewarding one even if the reward would be the satisfaction of earning a high percentage average student score in one's subject during the examinations. That is, the reward that comes from the activity itself and successful results rather than from conditions controlled by others (Deci and Ryan, 1985). Put in another

way, good performance is an occasion for self-reward which serves as an incentive for continuing to do well (Hackman and Oldman, 1980).

The foregoing lends credence to the issue of commitment most especially on the teachers' part. Teacher commitment contributes to but also is influenced by student achievement (Firestone and Roseblum, 1988; La Compte and Dworkni, 1991). The results of the study showed that teacher commitment was high but negative ($r = -0.59$, $r^2 = 0.35$) and contributed 8.06% as shown in Table 5 to teacher classroom performance.

This low-level commitment would hamper teacher performance in the classroom. Burned out teachers for instance, are less sympathetic toward students, have a lower if not zero tolerance for frustration emanating from problematic students, impatient with slow learners, feel anxious and exhausted most times. Such teachers are unlikely to produce outstanding students.

A less than ten percent teacher commitment is indicative that the teachers in this study might be more committed to their students than to their profession. Judging from the perspective of the model of teacher commitment on page 53, it is evident that the teachers fell into the top left quadrant of the model (HCS + LCT). The resultant effect was that student achievement was rather low while the interpersonal relationship among students and teachers must have been high – sacrificing high academic achievement to have perhaps, a very peaceful classroom environment devoid of any behaviour disruptions. Many social groups might exist in the state's schools today even though, the drop-out rates would reduce; moreso, when there seemed not to be proper standards for promotion into the next class. Yet how wasteful is the state's education system in terms of academic

competitiveness should there be comparison with students' achievement from other states. To sum up on this section, the results of the study showed that at least a two-dimensional teacher commitment is required to raise students' achievement, that is, commitment to both teaching and student.

Empirically, interest in schooling has been found to contribute significantly to the academic achievement of students. For example, Odinko and Adeyemo (1999; 1996) found that interest in schooling together with other socio-psychological factors were good predictors of students' attitude to the subject and learning outcomes in English Language. In like manner, Adeyemo (2003) attempted to link interest in schooling with academic self efficacy and stressed that no doubt academic self efficacy significantly influences school activities and student academic performance as a whole. Other studies have also demonstrated interwoven relationships between self-efficacy and learning outcomes (Pajares and Kransler 1994, 1995; Pajares, 1996; Piatrich and DeGroot, 1997; Adeyemo, 2001). In a nutshell, both personal and situational interests are of paramount importance when considering student performance in school activities.

Parental Involvement and Community Participation in Public Senior Secondary School Types

These results on the influence of parental involvement and community participation on Student Academic Achievement corroborate the literature in this regard that schools are hotbeds of violent aggression (Manning, 2000). To meet this challenge and curb acts of indiscipline in the state's schools, the government has adopted various means like War Against Indiscipline (WAI), Kick Against Indiscipline (KAI), MAN 'O' WAR and

recently, Neighbourhood Watch. Schools were mandated not long ago, to constitute the Boards of Governors which had as its membership religious leaders, community leaders among others. Many NGOs have severally been involved in school matters to combat aggression and violent behaviours among students.

Relationship Between Teacher Performance and Student Academic Achievement Among Public Secondary School Types in Lagos State

The overall Education Districts' averages (Table 21) showed that students from each of the six Districts performed below average percent in all the three core subjects irrespective of school types

This finding corroborates Alani's (2004) discourse concerning Ogun State secondary schools' students. Also, other literature, for example, a study by Cooper, Valentine, Nye and Lindsay, (1999) on five after-school activities that students engaged in: some structured and others unstructured. Among the former are homework/assignments, structured after-school group activities (Boys' Scout, Red Cross, Girls Guide, Sports Club, etc) while the latter concerns activities like picnics, church activities, family visits, television viewing and jobs. Also, Anderson and Collins (Comstock, 1991) have suggested that television viewing inhibits achievement by interfering with cognitive development. However, Gortmaker, Salter, Walker and Dietz (1990) had earlier posited that the negative effect of television viewing was not found consistently. Thus, Comstock (1991) concluded that "the evidence indicates a modest causal contribution by television to lower achievement" (p. 138).

To buttress the foregoing assertions, present researcher-constructed Students' Personal Data Inventory (SPDI) results (Table 13) showed (n=1159) 96.57% student – respondents' agreement that participation in co-curricular activities ranked first among all items on the instrument thus supporting Brown and Steinberg's (1991) and Gerber's (1996) findings. This was followed by 91.36% (n = 1096) agreement for meeting deadlines on assignments indicating that students themselves placed much value on homeworks and assignments given them as contributing to their academic achievement.

On the contrary, the amount of time (up to 5 hours daily) spent on television viewing was rated the least, (n=489; 40.72%) by students on this scale. Participants' response to the item: "TV viewing up to five hours daily is inhibitive to academic studies" had the lowest score. It is worthwhile to note here that the issue is not television viewing but rather the amount of time spent on watching it and what students are fond of watching (e.g. home videos/movies, drama written and acted in the vernacular, disco songs instead of educative programmes such as debates, quizzes, news both local and foreign, documentaries) and not parents' restraint from watching TV. In addition, 84.54% of the student – respondents (n = 1015) agreed that priority must be given to Academic Learning Time (ALT).

The implied corollary of the foregoing finding is that it might not be the increased attention of parents' monitoring of their children's academic progress at home or amount of television viewing but rather the latter's perceptions of the inhibitive nature of TV viewing to academic attainment which should regulate the time spent on viewing it.

Parents, most especially, should play their vital role of monitoring their children's academic progress both at home and at school. This fact calls for increased attention on their part thereby increasing students' consciousness for hard work and encouraging them to complete their education at the appropriate time. Thus, educational wastage would be reduced and that will increase the efficiency of the state's education system. More so, that the State Government is paying for the West African Secondary School Certificate Examination (WASSCE): there must be a justification for government continuing payment for this examination from the tax-payers' money. Or else, there should be a reversal of role between the state government and parents of the beneficiaries of this level of education. Instead of paying for the WASSCE, the government should provide for more infrastructural facilities to alleviate instructional problems, reduce class size and improve teacher conditions of service as well as raise teachers' remunerations.

Teachers on their own part, must endeavour to work in teams – team teaching is a more positive strategy of handling secondary school students. It could have been the realization of this fact that Federal Government Colleges exploit this strategy in teaching the core subjects (Biology, English and Mathematics) including other subjects having different aspects e.g. Literature-in-English that has prose, play and poetry. The problem from the teachers' part might be in their methods of teaching, temperamental attitude and differential modes of lesson presentation.

Teaching by explanation is an effective way of encouraging learning. By the same token, poor explanation will be a source of frustration and tension in class. It is worthy of note at this juncture, that not all teachers have oratory power as to explain satisfactorily to

students. There lies the strength of teamwork among teachers such that one teacher supplies what another lacks in his lesson presentation most especially when both teachers are in the same subject area.

The common thing observed among teachers is that they are more concerned in developing distinctive unique teaching persona (Cruikshank et al, 2009). However, Duke, Tucker, Salmonowicz and Levy (2007) found among other reasons that lack of team-work on the teachers' part inhibit student achievement because they noted, as in this present study, that teachers were accustomed to working in isolation. Yet, teaching should be a collaborative participatory teamwork.

Research has shown that "the quality of classroom teachers has the greatest impact on the performance level of students" Izumi and Evers (Ijaya, 2008) and is "the key to school improvement." Welberg (Ijaya, 2008). Also Anderson and Collins (Comstock, 1991) have suggested that television viewing inhibits achievements by interfering with cognitive development. However, Gortmaker, Salter, Walker and Dietze (1990) had posited that the negative effect of television viewing was not found consistently. Comstock (1991) thus concluded that "the evidence indicates a modest causal contribution by television to lower achievement" (p. 138). Therefore, knowledge of how students spend their non school hours can help predict their performance in school.

Summary of Findings

The study investigated input and process variables that best contribute to student academic achievement in Lagos state Public senior secondary schools. The major findings based on research hypotheses formulated in the study are as follow:

1. There were no statistically significant differences among the ten indicators of teacher performance ($F\text{-cal} = 0.0768$; $f\text{-tab} = 2.31$). Thus, there were statistically significant relationships among all the ten indicators as shown in the correlation matrix on page 55.
2. Teacher preparation had a positive statistically significant relationship with teacher performance ($r = 0.811$; $r^2 = 0.66$) and contributed 11.56% to the latter.
3. Subject matter knowledge correlated moderately positively with teacher classroom performance ($r=0.767$; $r^2 = 0.59$) and its contribution to the latter was 11.35%.
4. There was a significant positive correlation between teacher characteristics and teacher classroom performance ($r=0.91$; $r^2=0.83$).
5. The correlation between interest in teaching and teacher performance was positive though statistically significantly low ($r=0.47$; $r^2=0.22$) but it contributed 10.51% to the latter.
6. There were little variations though not statistically significant in parental involvement and classroom environment among Lagos State Public Secondary schools.
7. The results showed a strong negative relationship between teacher performance and student academic achievement ($r=-0.679$; $r^2 = 0.46$).
8. Qualifications, marital status, age and teaching experience have no significant effect on teacher performance level.
9. Profound knowledge of subject matter is the most important single significant predictor of student academic achievement. However, a linear combination of

subject matter knowledge and interest in teaching accounted for 12.9% of the variation in student academic achievement.

10. The findings of the study offer supports for previous research findings in the extant literature. All the significant correlations in this study among input and process variables and student academic achievement ranged between moderate and high co-efficient. Thus, strong conclusions can be drawn.

CHAPTER FIVE

SUMMARY, IMPLICATIONS OF FINDINGS AND CONCLUSIONS

Introduction

This chapter presents a summary encompassing the purpose of the study, the specific objectives addressed through the research questions, the methodology followed in the study and major findings from the statistical analyses.

The primary purpose of this study is to investigate the relationship between the secondary school teacher performance functions using the senior secondary 2 teachers in the six education districts of Lagos state as measured by the Teacher Appraisal Form (TAF) filled by the school administrators (Principals/Vice Principals), the researcher-constructed Teacher Personal Data Inventory (TPDI), Teacher Performance Indicators (TPI) filled by Heads of Departments and the students, Classroom Environment and Climate Scale, Classroom Observation Scale and student academic achievement as measured by the researcher-constructed Student Personal Data Inventory (SPDI) and achievement tests on the three core subjects and two other electives commonly offered by senior secondary school students. In addition, the study examined the effect of teachers' age, teaching experience and qualifications on teacher performance.

More specifically, the study provided answers to the research questions and the findings are summarised as follows:

- (1) Which of the teacher performance indicators contributed most to teacher classroom performance?

- (2) What is the relationship between teacher preparation (pre-service and in-service) and teacher performance?
- (3) What is the relationship between subject matter knowledge and teacher performance?
- (4) Is there any relationship between teacher characteristic traits and teacher performance?
- (5) Is there any relationship between interest in the job of teaching and teacher performance?
- (6) What relationships exist between parental involvement, classroom environment and interest in schooling among secondary school types in Lagos State?
- (7) What is the relationship between teacher performance and student academic achievement in Lagos State public senior secondary schools?

Review of Methodology

The entire population of Senior Secondary 2 teachers in Lagos State public secondary schools and 10% of SS2 students were included in the study. Descriptive research design was used to determine the relationships between the independent variables (the ten identified indicators), process variables (teacher performance) as measured by the TPDI, TPI and TAF; and dependent variables (student achievements in Biology, Economics, English, Mathematics and Yoruba). However, the choice of the teachers of those core subjects (Biology, English and Mathematics) handling SS2 in the 35 selected schools was reasonable because the entire teacher population was identified (150 teachers). These three subjects are the common offerings for all students in senior secondary school certificate examinations.

The choice of SS2 students was purposive: this class being the pre-ultimate to secondary school certificate examination class. It was rightly assumed that the teachers would have almost finished the syllabus and would just be revising with the students in preparation for end-of-course examinations. Thus, the researcher-constructed tests were employed rather than studying ex-post facto secondary school certificate examination (SSCE) results. Moreso, when the teachers' classroom performance was an on-going process and the content of study with its measurement occurred the same year.

The data for this study were analysed using the statistical package for social sciences (SPSS). Statistical methods used to interpret the data were correlation and regression analyses to determine the relationship between teachers' performance and school average student achievement. The unit of analysis was school average. Also, t-test statistic was used to test for level of significance.

Summary of Findings by Research Questions

Question 1 examined the ten identified indicators of teacher performance as measured by the TPDI, TPI and TAF to determine which of them contributed most to teacher classroom performance. Overall teacher performance was a composite score determined from the average of teacher self-ratings, supervisors' and students' ratings of their teachers' performance. Pearson Product Moment Correlation coefficients were calculated to determine the direction and magnitude of the relationship between the two variables, that is, each of the ten indicators to teacher performance. Results indicated evidence of moderate correlations among the indicators (Table 37) and overall teacher performance ($r=0.811, 0.767; 0.23, 0.89; 0.96, 0.47, 0.914; 0.91, -0.59; 0.64; p < 0.05$) for teacher

preparation, subject matter knowledge, instructional management, behaviour management, relationship with students, interest in teaching, evaluation of instruction, teacher characteristics, commitment and communication respectively. The relative contribution of each of these ten indicators to teacher performance expressed in percentages was also presented in table 5. All indicators except teacher commitment had positive correlations with teacher performance while instructional management had the lowest correlation co-efficient ($r = 0.23$) of all.

Question 2 examined the relationship between teacher preparation and teacher performance as measured by the TPI and TAF. Results of the Pearson product moment correlation showed that this indicator related significantly positively to teacher performance ($r = 0.811$, $P < 0.05$). Also, teacher preparation contributed mostly (11.56%) to teacher success in the classroom.

Question 3 investigated the relationship between subject matter knowledge and teacher performance as measured by the TPDI, TPI and TAF. Results showed that this teacher performance indicator correlated positively with teacher performance ($r = 0.767$; $P < 0.05$) and it made the second highest contribution (11.35%) to the latter.

Question 4 examined the relationship between teacher characteristics and teacher performance measures. Pearson product moment correlation results showed the association between teacher characteristics and teacher performance to be strong and positively significant ($r=0.91$; $P < 0.05$). Teacher characteristics also contributed 8.34% to overall teacher classroom performance.

Question 5 sought to know the relationship between interest in teaching and teacher performance. The correlation co-efficient was rather low but positive showing interests as related to teacher performance with the established criterion p – value 0.05 ($r=0.47$). Interest in teaching contributed 10.51% to total teacher success.

Question 6 examined the differences that exist among parental involvement, classroom environment and interests in schooling among secondary school types in Lagos State. Results of the t -test calculated to check whether there were differences revealed that overall, there were no statistically significant differences in parental involvement, classroom environment and interest in schooling among the various school types in Lagos State public secondary schools ($t\text{-cal} = -27.5$; $df = 33$; critical $t=1.853$; $P= 0.05$).

Question 7 examined the relationship between teacher performance and students' academic achievement in Lagos State public senior secondary schools. The results of the Pearson product moment correlation showed a negative strong relationship between teacher performance and students' achievement ($r = -0.679$; $P < 0.05$). This means that both variables have inverse relationship.

The test for significance level as calculated by the t -test statistic to show direction and strength of the relationship proved positive also ($t\text{-cal} = 41.494$; $df = 67$; critical $t = 1.669$; $P = 0.05$).

The study further attempted to find out whether years of teaching experience, teachers' qualifications and age would affect their performance in classroom operations. The results gave a no-effect verdict of the three moderator variables on teacher performance. All the four groups of teachers (untrained, trained, untrained with hither degree and

trained with higher degree) irrespective of years of teaching experience (novices, mid-career and veterans) showed no significant differences in their classroom performance as measured by the TPDI and TPI measures. The four categories of teachers believed in their classroom performance to be effective to the extent that the individual self-ratings were not significantly different. The average mean score for each group was above 3 with a convergent range of minimum score = 2, and maximum = 5 for all the four groups of teachers in almost all the items on the instruments.

In addition, regression analysis was carried out to determine which of the indicators were the best predictors of teacher classroom performance in the study. Stepwise selection results showed the best overall significant predictors of teacher performance to be interest in teaching ($b = .267$; $P = .001$) and subject matter knowledge ($b = .219$; $P = .006$). This indicated that for every unit increase in the two performance indicators (interest in teaching and subject matter knowledge), teacher performance would be expected to increase by .94 units. The R^2 adjusted value of 12.9% showed the amount of variance in teacher performance explained by the model. Thus, the stepwise selection showed a two-variable model to be the best overall predictor for improved teacher performance, that is, a linear combination of interest in teaching and profound subject matter knowledge.

Implications of findings for policy

- a) The findings of the study most especially in respect to student achievement have evoked some concerns that the state needs to urgently address. A state legislation on a more structured admission procedures into secondary schools, on the one

hand, and a more stringent entry procedure for admitting applicants into the teaching profession should be enacted. Prospective teachers should be made to write an entrance examination that would combine measures of aptitude, interest, and content knowledge in one's field of study in addition to possessing a minimum teacher qualification of Bachelor's Degree in Education from a reputable university. That is, Nigeria Certificate in Education (NCE) should no longer suffice just as those who had obtained degrees in specialist courses without training in pedagogy as a major need not apply.

- b) Another area where the state must focus is that of more investment in teacher education. The existing programmes need to be expanded to incorporate courses dealing with problems of adolescence with its transitory complexities, learning skills, effective classroom management strategies for positive behaviours as well as introducing IT innovations. More specialists need be employed and more material resources be procured.
- c) In addition, the results of the study have left much to be desired as regards supervisory rating of teachers. As a result, a state policy must be put in place mandating prospective principals to go for a short term course highlighting problem-solving, interpersonal and leadership skills, curriculum planning, budgeting procedures and of course information technology in preparation for assuming their position as the academic heads and social leaders of schools. Entrenched also in such a policy should be the number of years an individual principals could serve in that capacity. A maximum of five years is advocated by

the researcher so as to break the jinx of having unproductive principals serving for ten or twenty years. A case in point to support the foregoing is the practice at universities where the posts of HODs, Deans or even Vice Chancellors are on rotational basis. Needless to point out that it will help clear the backlog of high-level professional teachers (officers on Grade Levels 15, 16 and 17) still in the classroom teaching or at most retiring as vice principals – unsatisfied teachers can hardly produce outstanding students.

- d) A state policy spelling out the number of students to a teacher in class would not be out of place (even if it is not possible to stick to UNESCO's standard) for effective student-teacher interactions and consequent raise in student academic achievement. This may also incorporate seating arrangements in class, as groups rather than in rows for easy working relationships.
- e) Another area which the findings of the study are directing the state's focus has to do with stipulating performance standards for both teachers and students that must be imperatively enforced by a constituted Performance Standard Board. States in USA that had higher performance standards were found to have increases in student achievement or learning gains: Connecticut, Wisconsin, North Carolina, North Dakota, Minnesota and Texas to mention a few (Darling-Hammond, 2000c). However, this must be matched in practice with having well-qualified professional teachers who are also well grounded in multifarious teaching strategies, management skills and have unalloyed interest in modelling the lives of youngsters.

- f) Furthermore, a policy should be put in place such that the Personnel Department of Education Districts in Lagos State would be empowered to assess the credentials of beginning secondary school teachers on an on-going basis to ensure that no teacher has entered the profession through forged certificates and proactive ones are employed. .
- g) Since the state has its own information and communication technology systems – radio, television stations, Internet service providers, it is deemed possible also to effect a policy on team-teaching by teachers of proven teaching ability, so that uniform standard of teaching is made available for all students in the public secondary schools in the state. Through this, the practice of unified tests and examinations would be more meaningful.
- h) It is not enough that teachers are registered with the Teachers' Registration Council of Nigeria. All teachers in the state's education system should be licensed so that teaching would become a profession in the real sense of the word. Suffice to say that initial license must be obtained before any teacher is permitted to enter into the profession and there must be continuing licensing process such that obsolescence is curbed.

Implications of Findings for Practice

- Teacher education programmes need re-designing such that educators would be exposed to more engaging, challenging and life-long skills as well as be more proactive in an age of global information and communication technological advancements such as e-mail, instant messaging, video-conferencing and the

Internet which have virtually eliminated the work place barriers of geography and time.

- There is need for a paradigm shift from the culture of spoon-feeding the students to teaching for the acquisition of critical thinking and analytical skills, adaptability, effective speaking, global awareness, innovative problem solving to pursue self-directed learning journey in the 21st century.
- This research should not be interpreted to exclude any personality types from pursuing a career in teaching rather it should provide teacher educators, administrators and teachers a framework to better understand and appreciate the implications for personality theory and translate that understanding into practice.
- Teacher educators, education administrators and those charged with the responsibility of managing personnel need to encourage more qualified individuals to enter the profession.
- In-service and pre-service training programme providers should structure workshops to address diverse strengths and weaknesses of beginning secondary school teachers. Emphasis on the following teaching effectiveness competency; such as problems of adolescence with its transitory complexities, learning skills, effective classroom communication and management strategies for positive behaviour as well as introducing ICT innovations.

Implications for Further Research

- Future researches should be conducted to serve as a follow-up in other school/education systems e.g. to further investigate the relationship between teacher performance and student academic achievement.

- To strengthen the findings of this study, future research should include Junior Secondary School teachers and students to determine if school levels influence students' academic achievement.
- A longitudinal study is advocated to ascertain the validity of the Teacher Personal Data Inventory and the Teacher Appraisal Form (TAF) as veritable instruments for measuring teacher effectiveness in classroom operations.

Contributions to knowledge

1. The study developed two models as shown on pages 15 and 55. The models of adopted by schools will enhance teachers' service delivery, performance and general students academic, achievement in all subjects. The models will also guide education planners on how best to evaluate and assess teachers' commitment for quality education.
2. The study has brought to light the fact that setting standards of work performance, achievement levels for students and enforcing such standards result in higher student achievement.
3. It has also established that peer-group influence is not necessarily negative but enhances student achievement and socialization skills.

Conclusions

The following conclusions were based on the findings of the study.

1. Both school administrators (principals) and students in their teacher performance ratings were able to identify teachers' indicators (teacher preparation, subject matter knowledge and teacher characteristics) which are better able to promote teacher performance and consequently raise students' academic achievement.

2. The model containing the linear combination of interest in teaching and profound subject matter knowledge was found to be the best significant predictor of teacher classroom performance.
3. Two of the multiple dimensions of teacher commitment (commitment to the profession and to the students) in conjunction with the desire to realize instructional goals would raise teacher classroom performance and eventually effect learning gains.
4. Amount of time spent on television viewing and the non-academic programmes which students are fond of watching are the inhibitors to student academic achievement.
5. The study has designed instruments (TPDI and TAF) for rating teachers' performance that make it possible now for teachers to rate themselves, and for students and supervisors to easily assess teachers on the ten identified indicators as to judge their level of effectiveness.
6. The study developed two models as shown in to establish that a mix of the multiple dimensions of teacher commitment predicts teacher performance and contributes to higher student achievement.
7. It informs practitioners, administrators and teacher educators that teacher practices rather than pedagogical knowledge alone that contribute to differential levels of teacher success in classroom operations leading to student learning gains.
8. Peer-tutoring under effective teacher supervision might be the best approach to raising academic standard of low-performing students.

9. Through the study findings, it is clearly established that an effective teacher only is the BEST CRITIC (the acronym formed by re-arranging the ten identified indicators of teacher performance) of the teaching-learning process and other school related matters.

Nonetheless, the findings of this study in conjunction with a number of other studies in recent years, suggest that states interested in improving student achievement may be well advised to attend, at least in part, to the preparation and qualifications of the teachers they hire and retain in the profession. It stands to reason that student learning should be enhanced by the efforts of teachers who are more knowledgeable in their field and are skilful at teaching it to others as well as be ardent in diagnosing their students' learning needs.

References

- Adaralegbe, A. (ed.) (1985). *A Philosophy for Nigerian education*, Ibadan: Heinemann Books Limited.
- Adeniji, I.A. (1999). A Path-analytic study of some Teacher characteristics and teacher job performance in secondary schools in Ogun State. *Unpublished Ph.D Thesis*. University of Ibadan, Ibadan.
- Adepoju, T.L. (1995). Planning of secondary education in Nigeria. A case study of Oyo State (1985-2000). *Unpublished M.Ed. dissertation*. University of Ibadan, Ibadan.
- Adepoju, T.L. (1998). The gap between teacher demand and supply in secondary schools in Oyo State (1985-1994). Implications for educational planning. *African Journal of Educational Management*, 6, 51-60.
- Adepoju, T.L. (1999). Quality control in teacher education. *Paper presented at the: National conference on the teacher, teacher education and the Nigerian nation*. Federal College of Education, Osiele - Abeokuta, between 11-14, October.
- Adepoju, T.L. (2002). Public perception of quality in private primary and secondary schools in Nigeria: Implications and challenges for the private investors. In Adepoju, T.L. (ed.), *Basic issues in primary and secondary education*, (pp. 105-118). Lagos: Prospectus publications.
- Adesina, S. (1977). *Planning and educational development in Nigeria* (2nd Ed.) Lagos: Educational Industries (Nig.) Ltd.
- Adeyemo, B. (1988). Effect of communication patterns on personnel behaviour in institutions of higher learning in Ogun State. *Unpublished Ph.D Thesis*. University of Ibadan, Ibadan.

- Adeyemo, D. A. (2001). Self efficacy and subject enrolment in secondary schools: An empirical inquiry. *Ibadan Journal of Educational Studies*, 1(1), 86-95.
- Adeyemo, D. A. (2003). Parental involvement, interest in schooling and school environment as predictors of academic self-efficacy among fresh secondary school students in Oyo State, Nigeria. *Electronic Journal of Research in Educational Psychology*, 5-3(1), 163-180. Accessed on the 23, January 2008.
- Ajayi, A.O. (1986). The 6-3-3-4 education policy: Means to self-employment. *Lagos Education Review*, 3 (2), 25-37.
- Akinpelu, J.A. (1986). Teachers' professional commitment in the context of the general policy on education. *Foundation Day Lecture*, Federal College of Education Osiele, Abeokuta.
- Alani, R. A. (2004). Role of parents in Education Financing in Nigeria. In Ejiogu, A. (ed) (2004). *Nigeria education and the challenges of the 21st century*. Lagos: University of Lagos, Faculty of Education. Printed by Mukugamu and Brothers Enterprise.
- Alani, R.A. (2000). Towards a system of continuous teacher education in Nigeria. In Ejiogu, A.M. & Alani ,R.A. (Eds.), *Emergent issues in Nigerian Education 2*, pp. 37-45. Somolu: Mukugamu (Nig.) Company.
- Aloba, O (1997). Provision of physical and social infrastructure in borderland areas in south western Nigeria, some examples from Lagos State. *Quarterly Journal of Administration*, Obafemi Awolowo University, Ile-Ife.
- Anaekwe, M. C. (1997). Effects of students' interaction patterns, cognitive achievement, retention and interest in Chemistry. *Unpublished Ph.D Thesis*, University of Nigeria, Nsukka.

- Anderson, L.W. (1991). *Increasing teacher effectiveness*. Paris: UNESCO-International Institute for Educational Planning.
- Anderson, M. L; Evertson, C. M. and Brophy, J. E. (1979). An experimental study of effective teaching in First-grade reading groups. *The Elementary School Journal*, 79 (4), 193-223.
- Anderson, S.E. and Carroll, C. D. (2008). Teacher career choices: Timing of teachers careers among 1992-93 Bachelor's degree recipients (NCES 2008-153). Washington DC: United states Department of Education.
- Ary, D., Jacobs, L.C; and Razavich, A. (2002). *Introduction to research in education* (67th ed). Belmont, CA: Wadsworth/Thompson Learning.
- Ashworth, A and Harvey, R.C. (1994). Assessing quality in further and higher education. *Higher Education Policy Series*, 24. London: Jessica Kingsley Publishers.
- Avalos, B. and Hadad, W. (1981). *A review of teacher effectiveness research in Africa, India,, Latin America, Middle East, Malaysia, Philippines and Thailand: Synthesis of results* Ottawa: International Development Research Centre.
- Awomolo, A. (Aug. 1985). Teacher effectiveness: Towards the definition of a complex concept. *The West African Journal of educational and vocational measurement*, 6, 43-57.
- Balkcom, C. T. (2002) African-American parental Involvement in Education: A phenomenological study of the role self-efficacy. *Dissertation Abstract International*, 63(2), 495 (Umi No 304 1993).
- Bandura, A. (1986). *Social foundations of the thoughts and actions*. Englewood Cliffs, New Jersey: Prentice Hall.

- Bandura, A. and Jourden, F.J. (1991). Self-regulatory mechanism governing the impact of social comparison on complex decision-making. *Journal of Personality and Social Psychology*, 50, 242-298.
- Barr, A.S. (May, 1961). Wisconsin studies of the measurement and prediction of teacher effectiveness. *Journal of Educational Research*, 51.
- Bilesanmi, Jumoke (1999). A causal model of teacher characteristics and students' achievement in some ecological concepts. *Unpublished Ph.D Thesis*. University of Ibadan, Ibadan.
- Blackman, B. A. and Tangel, D. M. (2008). *Road to reading: A programme for preventing and remediating reading difficulties*. Baltimore, MD: Paul H. Brookes.
- Brophy, J. and Good, T. L. (1986). Teacher behaviour and student achievement. In M.C. Wittrock (Ed). *Handbook of research in teaching*. New York: Macmillan.
- Brown, B. B. and Steinberg, L. L. (1991). Non Instructional influences on adolescent engagement and achievement. Final Report project 2. Maddison, W. K: National Centre on Effective Secondary Schools. (Eric Document Reproduction).
- Burton, D. and Bartlett, S. (2005). *Practitioner Research for Teachers*. London: Paul Chapman Publishing, pp. 37-84.
- Caldwell, B.J. and Spinks J.M. (1992). *Leading the self-managing school*. London: Falmer Press.
- Camburn, E. M.; Rowan, B, and Taylor J. (2003). Distributed leadership in schools: The case of elementary schools adopting comprehensive school reforms models. *Educational Evaluation and Policy Analysis*, 25(4), 347-373.

- Capel, S. ; Leask, M. and Turner, T. (2005). *Learning to teach in secondary schools*, 4th edition. London: Routledge
- Carnegie Council on Adolescent Development (1989). *Turning points: Preparing American youths for the 21st century*. Washington, DC: Author.
- Charles, C. M. (2002). *Building classroom discipline* (7th ed.). Boston: Allyn and Bacon.
- Cheng, Y.C. (1995). School education quality: Conceptualization, monitoring and enhancement in P.K. Sui and T.K. Tam (eds.), *Quality in education: Insights from different perspectives*. Hong Kong Education Research Association.
- Cheng, Y.C. (1996). *School effectiveness and school based management: A mechanism for development*. London: Falmer Press.
- Clarke, P. (Ed) (2005). *Improving schools in difficulty*. London: Continuum, pp.
- Clarke, P. (ed.) (2005). *Improving schools in difficulty*. London: Continuum.
- Claridge, Pamela B. (1990). Multiple perspectives on the classroom performance of certified and uncertified teachers. *Journal of Teacher Education*, 41 (4), 15-25.
- Coker, H. (1985). A study of correlation between principals' ratings of teacher effectiveness and pupil growth. *Technical Research Report*, 143. Washington, DC: National Institute of Education.
- Coker, H. and Coker J. (1982). *Classroom observations keyed for effectiveness research (COKER). Observer Training Manual*. Atlanta: Georgia State University.
- Coker, H. and Coker, J. (1988). *Classroom observations keyed for effectiveness research (COKER)*. Atlanta: Georgia State University.

- Colbert, J. A. and Wolff, D. E. (1992). Surviving beginning schools: A collaborative model for a beginning teacher support systems. *Journal of Teacher Education*, 43(3) 193-199.
- Comstock, G. (1991) Television and the American Child. New York: Academic press.
- Cooper, H.; Lindsay, J. J.; Nye, B. and Greathouse, S. (1998). Relationship between attitudes about homework, the amount of housework assignment and completed, and student achievement. *Journal of Education Psychology*, 90, 70-83.
- Cooper, H.; Valentine, J. C.; Nye, B. and Lindsay, J. J. (1999). Relationships between five after school activities and academic achievement. *Journal of Educational Psychology*, 91(2), 369-378.
- Cooper, N.; Valentine, J. C; Nye, B. and Lindsay, J. J. (1999) Relationship between five after-school activities and academic achievement. *Journal of Educational Psychology*, 91(2), 369-378.
- Council on School Performance (1997). Teachers with advanced degrees advance student learning. Atlanta: Council for School Performance, Georgia State University.
- Crawford and Bradshaw (1968). Perceptions of characteristics of effective university teacher. *Journal of Educational Psychological Measurements*, 28, 1079-1085.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 291-334.
- Cruikshank, D. R.; Jenkins, D. B. and Metcalf, K. K. (2009). *The act of teaching* (5th edition). Boston: McGraw Hill Higher Education.

- Cutler G. and Waine, B. (1999). Rewarding better teachers? Performance related pay in school. *Educational Management and Administration*, 27(1), 55-70. London: Sage Publication.
- Darling-Hammond (2003). Standards and assessments: Where We are and What We Need. Accessed on 11 January 2006 from <http://epaa.asu.edu/epaa/v8n1>.
- Darling-Hammond, L. (1997). *Teacher quality and student achievement.: A review of state policy evidence*. New York: National commission on teaching and America's future.
- Darling-Hammond, L. (2000c). Reforming Teacher Preparation and licensing: Debating the Evidence. Electronic Journal Accessed on Jan. 11 2006, from <http://epaa.asu.edu/epaa/v8n1>).
- Darling-Hammond, L. (2004a). Standard, accountability and school reform. <http://epaa.asu.edu/epaa/v8n1>. Accessed on 11 January 2006.
- Darling-Hammond, L. (2004b). Inequality and the right to learn: Access to qualified teachers in California's Public Schools. <http://epaa.asu.edu/epaa/v8n1>. Accessed on 28 June, 2009.
- Darling-Hammond, L; Wise, A. E. and Klein, S. (1995). *A License to teach: Building a profession for 21st century schools*. Boulder: Westview press.
- Dinwiddie County Public Schools (2000). Guidelines for uniform performance standards and evaluation criteria for Teachers, Administrators and Superintendents. (Virginia: Virginia Department of Education).
- Downie, M.W. (1952). Students evaluation of faculty. *Journal of Higher Education*, 23, 295-503.

- Duke, L. D.; Tucker, P.D; Salmonowicz, M. J. and Levy, M. R. (2007). How comparable are the perceived challenges facing principals of low-performing schools? *Journal of Commonwealth Council for Educational Administration and Management. International Studies in Educational Administration* (35(1).
- Dunkin, J. J. and Biddle, B. J. (1974). *The study of teaching*. New York: Holt, Rhinehart and Winston, Inc.
- Durojaiye, M.O.A. (1978). Investment in man. *Inaugural lecture series*. University of Lagos, Lagos.
- Ejiogu, A.M. (1990). *School personnel management: A Nigerian perspective*, Lagos: University of Lagos Press.
- Ejiogu, A.M. (1992). *Theories of job satisfaction and job performance*. Lagos: Joja Educational Research and Publishers Ltd.
- Electronic Journal (2000). Student performance level descriptions. Accessed on 8 January, 2001.
- Electronic Journal (2003): Communication in classroom interactions. Accessed on 8 October, 2004 from <http://www.cikqu.net.my/English/classtech.php.3?page=techclass.20020311>.
- Electronic Journal (2005). Teacher performance indicators and students achievement. Accessed on 30 March, 2007 from http://reportcard.k12.hi.us/teachers_admin/FAQ_teacher.htm.
- Emmer, D. T. (1987). Classroom management and discipline In V. Richardson-Kuehler (Ed). *Educators' Handbook* (pp. 259-293). New York: Longman.

- Emmer, E. T., Evertson, C.M. and Anderson, L. M. (1980). Effective classroom management at the beginning of the school year. *The Elementary School Journal*, 80(5), 219-231.
- Evertson, C. M., Emmer, E. T., Clement, B. S., Sandford, J. P., Worsham, M. E. and Williams, E. J. (1981) *Organisation and managing the elementary school classroom*. Austin, Texas: Research and Development Centre for Teacher Education (ERIC Document Reproduction Service No. ED 223570.SPO 21330).
- Fafunwa, A.M. (1994). *History of education in Nigeria*. London: George Allen and Unwin Ltd.
- Fagbamiye, E.O. & Osunkalu, V.O. (1979). Contextual effects and learners characteristics as determinants of students' achievement. *Ife Journal of Educational Studies*, 1,1.
- Fagbamiye, E.O. (1981). *The organization and administration of Nigerian universities and the satisfaction of the motivation of lecturers in some of these universities*: Eric Clearing House.
- Fagbamiye, E.O. (1997). The future in the instant: Managing Nigerian Education for Development. *Inaugural Lecture Series*. University of Lagos, Lagos.
- Fagbamiye, E.O. (2000). Teachers' remunerations, conditions of service, job satisfaction, attitude to work and job performance in selected secondary schools in Lagos state. *Being paper presented at the annual conference of the Nigerian Association for Educational Administration and Planning (NAEAP)*. Ilorin: University of Ilorin.

- Fagbamiye, E.O.(July, 1981). The public image of teachers and their effectiveness. Some untoward consequences. *Education and Development – A Journal of the Nigerian Education Council*, (2), 263-273.
- Farrant, J.S. (1964). *Principles and practice of education*. London: Longman.
- Federal Republic of Nigeria (2004). *National Policy on Education* (Revised). Lagos: NERC Press.
- Feigerbaum, .V. (1951). *Quality control: Principles, practice and administrations*. New York: McGraw Hill.
- Fetler, M. (1999) High school staff characteristics and mathematics test results. *Education policy analysis Archives*, 7, 9. (Available online at <http://epaa.asu.edu/epaa/v7n9.html>).
- Fitzmaurice, M.D. (1976). *Learning Institute in-service results*. Paper presented at the annual meeting of the International Reading Association.
- Forester (). *Practice management handbook*.
- Fuller, B. (1986). Defining school quality. In J. Hannaway and L.E. Lockheed (eds.) *The contribution of social science to education policy and practice, 1965-1985*. Francisco, California: Mc-Cutchan.
- Fuller, E. J. (1999). Does teacher certification matter? A comparison of TAAS performance in 1997 between schools with low and high percentages of certified teachers. Austin: Charles A. Dana Centre, University of Texas, Austin.
- Fraenkel, J. R. and Wallen, N. E. (1990). *How to design and Evaluate research in education*. New York: McGraw Hill Publishing Company.

- Gable, R. A. Quinn, M. M., Rutherford, R. B., and Howell, K. (1998). Addressing problem behaviours in schools: Use of functional assessments and behaviour intervention plans. *Preventing school failure*, 42, 106-119.
- Gerben, S. B. (1996) Extracurricular activities and academic achievement. *Journal of Research and Development in Education*, 30, 42-50.
- Glasser, W. (1985). *Control theory in the classroom*. New York: Harper and Row.
- Glasser, W. (1990). *The quality school (2nd Edition)*. New York: Harper and Row.
- Goldhaber, M. and Brewer, D. (1999). Does teacher certification matter? High school certification status and student achievement. *Unpublished manuscript*.
- Gordon, H. R. D. and Yocke, R. (1999). Relationship between personality characteristics and observable teaching effectiveness of selected beginning career and technical education teachers. *Journal of Vocational and Technical Education*, 16(1), 1-18.
- Gortmaker, S. L.; Salter, C. A.; Walker, D. K. and Dietz, W. H. (1990). The impact of television viewing on mental aptitude and achievement: A Longitudinal Study. *Public Opinion quarterly*, 54, 494-604.
- Grotruck, W. S. and Slowiaczek, M. L. (1987). Parents involvement in children school. A multidimensional conceptualization and motivational model. *Child Development*, 65(1), 232-252.
- Guarius, C. M., Santibanez, L. and Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research*, 76, 2, 173-208.
- Hart, A. W. (1995). Reconceiving school leadership: Emergent views. *Elementary School Journal*, 96(1), 9 – 28.

- Hiddi, S. and Anderson, V. (1992). Situational interest and its impact on reading and expository writing. In K. A. Reaminger, S. Hiddi and A. Krapp (Eds). *The role of interest in learning and development*, pp. 413-435.
- Hughes, P. (ed.) (1988). *The challenges of identifying and marketing quality in education*. Sydney: The Australian association of senior educational administrators.
- Ijaya, N. Y. S. (2008). The quality of teacher education in Nigeria.. In Ejiogu, A. and Onyene, V. E. (2008). *Emergent issues in Nigeria Education* 4, 230-250.
- Imam, H. (2003). Motivation factor: A survey of strategies employed by secondary school principals for enhancing teacher productivity in the FCT, Abuja. In *Jos Educational Forum – A Journal of the Department of Arts and Social Science Education*, 2 (1), 83-95.
- Iyewarun, (1989). A study of the relationship between teachers' behaviour and students' achievement. *Journal of the Science Teachers Association of Nigeria*, 2, 117-125.
- Jackson, A. W. and Davis, G. A. (2000). *Turning points 2000: Educating adolescents in the 21st century*. New York: Teachers College Press.
- Jacoby, E., Cueto, M. and Politt, J. (1999). Determinants of school performance among Quechua children in the Peruvian Andes. *International Review of Education*, 45 (1); 27-43.
- James, W. J. (1939). *Talks to teachers on psychology: and to students on some of life's ideals*. New York: Henry Holt.
- Jean Rudduck and Julia Flutter (2004). *How to improve your school. Giving pupils a voice*. London: Continuum pp. 126-138.

- Jones, M. (1997). Trained and untrained secondary school teachers in Bardados: Is there a difference in classroom performance? *Educational Research*, 39, 2, pp.
- Jung, C. G. (1988). *Psychological types*. New York: Harcourt and Brace.
- Juran, J. and Cryna, F.J. (eds.) (1988). *Juran's quality control handbook*. (4th ed). New York: McGraw Hill.
- Kerr, M. M. and Zigmond, N. (1986). What do high school teachers want? A study of expectations and standards. *Education and Treatment of Children*, 9, 239-249.
- Kim, K. and Robner, R. P. (2002). Parental warmth, control and involvement in schooling: Predicting academic achievement among Korean-American Adolescents. *Journal of Cross-Cultural Psychology*, 33, 127-140.
- Kolawole, C.O.O. (1998). Linguistic in-puts and three methods of presentation as determinants of students' achievement in senior secondary school essay writing in Ibadan. *Unpublished Ph.D Thesis*. University of Ibadan, Ibadan.
- Konzes and Posner, (2006:14) quoted in Littleford, A. R. (2007). Principal leadership and its perceived influence on teacher morale in elementary schools. *Unpublished Doctor of Education Thesis*. East Tennessee State University, Tennessee.
- Kounin, J. S. (1970). Observing and delineating techniques of managing behaviour in classrooms. *Journal of Research and Development in Education*, 4(1), 62-72.
- Kuder, G. F. (1968) Kudar occupational interest survey: Manual. Chicago: Science Research Associates Inc.
- Lambert, I. (2003). Leadership capacity for lasting school improvement. Alexandria, V. A.: Association for Supervision and Curriculum Development.

- Lee, G.C. (1957). *An introduction to education in modern America*. New York: Holt, Rinehart and Winston, inc.
- Leithwood, K. and Janzi, D. (2000). The effects of different sources of leadership on student engagement in school. In K. A. Riley and K. S. Louis (Eds). *Leadership for change and school reform: International Perspectives*, (pp. 50-66). New York: Routledge Falmer.
- Littleford, A. R. (2007). Principal leadership and its perceived influence on teacher morale in elementary schools. *Unpublished Doctor of Education Thesis*. East Tennessee State University, Tennessee.
- Madike, F.U. (1977). Teacher preparation and student achievement: An experimental comparison of microteaching with a traditional approach. *An Unpublished Ph.D Thesis*. Stanford University. In Awomolo, A.A. (1988). Teacher effectiveness: Towards the definition of a complex concept. *The West African Journal of Educational and Vocational measurement*, 6, 43-57.
- Manning, M. L. (1999/2000). Developmentally responsive multicultural education for young adolescents. *Childhood Education*, 76, 82-87.
- Manning, M. L., and Bucher, K. T. (2001). *Teaching in the middle school*. Columbus, OH: Prentice-Hall.
- McClain, C. R. (1987). The relationship between personality characteristics and teaching effectiveness of secondary vocational Agriculture teachers. *Unpublished Doctoral Dissertation*. University of Nebraska, Lincoln.
- Nzewi, U. M. (2006). Science issues in science and technology education for sustainable UBE. TRCN: *Nigerian Journal of Professional Teachers*, 1(3), 50-58.

- Obe, E.O. and Nigwo, B.A. (1996). Remedies for Mass Failure and Examination Malpractices. In Obe, E.O. (Ed). *School Indiscipline and Remedies*. Lagos: Premier Publishers and Publication.
- Oberholer, A. (2005). A national qualification framework (NQF). Non-Quick-Fix for life-long learning and assessment. *A paper presented at IACA 31st Annual Conference, Abuja, Nigeria, September, 4-9.*
- Obiora, E.N. (1967). Factors in teacher effectiveness: An experimental study of some factors associated with effective teaching. *Unpublished M.Ed project*. University of Ibadan, Ibadan.
- Odinko, M. N. and Adeyemo, D. A. (1991). Students' socio-psychological factors as predictors of achievement in Senior Secondary English Language. *African Journal of Educational Research*, 5,(1), 126 – 133.
- Ogunbayo, F.O. (1988). Students' perceived correlates of teacher effectiveness in Nigeria. *Journal of Educational Leadership*, 3 (1), 276-287.
- Oguntoye, O.O. (2000). Funding higher education in Nigeria: Crucial issues. In Ejiogu, A. and Alani, R.A. (eds.) *Emergent Issues in Nigerian Education*, 3, 156-170.
- Okebukola, P. A. O. (1984). Tackling the problem of large classes in Biology: An investigation into the effects of co-operative learning techniques. *Journal of STAN*, 22 (2), 73-77.
- Okebukola, P. A. O. (2005a). Quality assurance in teacher education. *Address presented to the Committee of Deans of Education, Ilorin.*

- Okebukola, P. A. O. (2005b). The race against obsolescence: Enhancing the relevance of STAN to National Development. *Address presented to the committee of Deans of Education*, Ilorin.
- Olatunji, S. A. (1979). The relationship between selected antecedent variables and practice teaching performance. *West African Journal of Education*. Ibadan: University Press.
- Onyene, V. E. (2005). *Insights into organising basic education levels in Nigeria*. Lagos: Vitaman Educational Books.
- Osinowo, O.C. (1986). The relationship between principals' instructional leadership roles and teacher classroom task performance in Ogun State secondary schools. *Unpublished Ph.D Thesis*. University of Ibadan, Ibadan.
- Overall, L. and Sangster, M. (2007). *Secondary Teachers' Handbook*. Clipperham: Antony Rowe Ltd.
- Oyedeji, I. (1983). *The UPE in Nigeria. Its Implications for National Development*. Lagos: University of Lagos Press.
- Oyeyinka, A. F. and Adewuyi, E. O. (2006). Professionalising and radicalizing teaching for effectiveness. TRCN: *Nigerian Journal of Professional Teachers*, 1(3), 41-49.
- Pajares, F. (1996). Self efficacy beliefs and mathematical problem solving of gifted students. *Contemporary Educational psychology*, 21, 323-344.
- Pajares, F. and Kramsher, J. (1994). Self-efficacy, self concept and general mental ability in mathematical problem-solving., *Research Bulletin*. Florida Educational Research Council.

- Payne, M. J., Conroy, S. and Racine, L. (1998). Creating positive school climates. *Middle School Journal*, 30, 65-67.
- Pintrich, P. K. and De Groot, E. V. (1997). Motivational and self regulated learning component of classroom academic performance. *Journal of Educational psychology*, 82, 33-40.
- Polland, A. (ed) (2002) *Reading for reflective teaching*. London: Continuum, p. 262.
- Polland, A; Collins, J.; Mddock, M.; Simon, N.; Swaffield, S.; Warrin, J. and Warwick, P. (2005). The reflective teacher (2nd edition). *Evidence informed professional practice*. London: Continuum, Part 2, pp. 264-310.
- Pounder, D.G. Ogawa, R.T. and Adams, E.A. (1995). Leadership as an organization-wide phenomenon: Its impact on school performance. *Educational administration quarterly*, 31 (4), 566-588.
- Public School of North Carolina State Board of Education, NC Department of Public Instruction (2002). *Student accountability standards: Frequently Asked Questions*. Rakish, NC: Division of Accountability.
- Reynolds, A. J. and Gill, S. (1995). The role of parental perspectives in the school adjustment of inner city black children. *Journal of Youth and Adolescence*, 31, 671-694.
- Richmond, J. (1996). Quantitative measures of secondary school performance using school level data. *Educational Management and Administration*, 24(2), 151-160.
- Roth, W. M. (1998). Teacher as researcher reform: Students' achievement and perception of learning environment. *Learning Environment Research*, 1, 75-93.

- Rouk, V. (1979). Separate studies show similar results of teacher effectiveness. *Education and Research Development Report*, 2, 6-10.
- Schiefelle, U. (1991). Interest in learning and motivation. *Educational Psychologist*, 26, 299-323.
- Slavin, R. E. (2002). *Educational psychology: Theory into practice*. Boston: Allyn and Bacon, pp. 99-100.
- Soar, J.D. (1977). *Group Process and Productivity*. New York: Academic Press.
- Spiggle J. B. (2003). Relationship between teacher performance and student growth outcomes in a school district in North Carolina Public Schools' Fifth Grade. *Unpublished Manuscript*. North Carolina State University, Raleigh.
- Stipek, D. (2006 Sept). Relationships matter. *Educational Leadership*, 64,1,46-49.
- Stow, S. B. (1979). Using effectiveness research in teacher evaluation. *Educational Leadership*, 39(4), 55-57.
- Student Attendance: www2.dadeschools.net/schoolboard/rules/chapt5/5a-1.041.pdf.
- Taiwo, O.C. (1980). *The Nigerian Education Systems: Past, Present and Future*. Lagos: Thomas Nelson (Nig.) Ltd.
- Tobin, K. (1986). Effects of teacher wait-time on discourse characteristics in Maths and Language Arts classes. *American Educational Research Journal*, 23(2), 191-200.
- Toler, (2002) Principal leadership and its perceived influence on teacher morale in elementary schools. In Littleford, A. R. (2007), *Unpublished Doctor of Education Thesis*. East Tennessee State University, Tennessee.
- Trevor, K. and Wilding, M. (2004), Effective classroom teacher. Developing the skills you need.

Ukwuegbu, C. (July, 2001). The standard of English of Nigerian candidates in the West African Senior School Certificate Examinations. *Being a paper presented at a workshop on English Language teaching in secondary school*. WAEC monthly seminar.

Veenman, S. (1984). Perceived problems of beginning teacher. *Review of Educational Research*. 54(2), 143-178.

Wayne, A. and Youngs, P. (2003). Teachers' characteristics and students' achievement gains: A review. *Review of Educational Research*, 73, 1, 89-122.

Willis, D.R.; Gaylen, M. K.; Saywell, R. M. (Jr), and Kiovsky, R. D. (2004). An incentive compensation system that rewards individual and corporate productivity. *Family Medicine Journal, Department of Family Medicine, Indiana University*, 36, 4, 270 – 278.

Wright, S. P.; Horn, S. P.; and Sanders, W. L. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 57-67.

APPENDICES

APPENDIX A₁: SENIOR SCHOOL CERTIFICATE EXAMINATIONS 1989-1993 NIGERIA: STATISTICS OF ENTRIES AND RESULTS

Subject	Year	Total Entry	Total Sat	NUMBER AND PERCENTAGE OBTAINING GRADE										
				Percentage Credit and Above						PASS		FAIL		
				1	2	3	4	5	6	1-6	7	8	1-8	9
English	1989	92.736	98.9	0.0	0.1	1.7	0.9	1.8	4.5	9.0	7.4	10.9	27.3	72.7
	1990	197.012	99.4	0.0	0.0	0.7	0.4	1.0	4.2	6.2	8.0	13.6	27.9	72.1
	1991	299.323	98.4	0.0	0.1	1.0	1.3	1.7	6.0	10.2	8.7	12.0	30.9	69.1
	1992	369.264	99	0.0	0.1	0.8	1.0	1.9	7.6	11.4	12.6	16.5	40.5	59.5
	1993	501.491	99	0.0	0.1	1.3	1.4	2.3	8.1	13.3	12.7	16.6	42.6	57.4
Mathematics	1989	92.734	98.3	0.5	0.4	1.6	0.8	1.4	4.0	8.8	10.2	19.8	38.8	61.2
	1990	196.819	99.1	0.2	0.3	1.5	1.3	1.5	5.7	0.6	13.7	23.6	47.9	52.1
	1991	299.338	98.2	0.2	0.2	1.4	1.2	1.9	6.2	11.1	15.6	23.6	50.3	49.7
	1992	366.196	98.7	0.6	0.8	4.2	2.9	3.9	9.6	21.9	19	21.6	62.5	32.5
	1993	498.175	98.6	0.2	0.2	1.4	1.3	1.7	6.0	10.9	17.6	25.5	54	46

(Data extracted from WAEC Statistics on SSCE Results)

APPENDIX A₂:
WASSCE RESULTS FOR 2000-2005
NATIONAL AND LAGOS STATE STATISTICS OF ENTRIES AND RESULTS

YEAR	NATIONAL STATISTICS					LAGOS STATE STATISTICS				
	Total Entry	A1-C6	% Pass	D7-F9	% Fail	Total Entry	A1-C6	% Pass	D7-F9	% Fail
2000	715575	59265	8.28	656310	91.72	106.983	17408	16.27	89575	83.73
2001	960503	178054	18.54	782449	81.46	154724	39407	25.47	115317	74.53
2002	1224401	187894	15.35	1036507	84.65	166882	42654	25.56	124228	74.44
2003	1039422	200312	19.25	839110	80.73	149621	44901	30.01	104720	69.99
2004	1052046	191939	18.24	860107	81.76	143605	43268	30.13	100337	69.87
2005	1090763	203992	18.70	886771	81.30	151381	51972	34.33	99409	65.67

(Data extracted from WAEC Statistics on SSCE Results)

**APPENDIX A₃:
NECO SSCE RESULTS FOR 2000-2005
NIGERIA: STATISTICS OF ENTRIES AND RESULTS**

Year	Total Entry	A1-C6	% Passed	D7-F9	%
2000	892277	371,411	41.63	520866	58.37
2001	916195	409255	44.67	506940	55.33
2002	1034384	525320	50.79	509064	49.21
2003	902463	412982	45.76	489481	54.24
2004	897572	337566	37.61	560006	62.39
2005	876712	179333	20.46	697379	79.55

(Data extracted from NECO Statistics on SSCE Results)

APPENDIX B
List of the selected 35 Schools

DISTRICT I

S/N	Schools' Names	BIO (X)	ENG (X)	Maths (X)	Total (X)	Average (%)
1.	Aboru/Ifesowapo Secondary School	24.5	32.0	28.5	31.4	29.3
2.	Girls' High School, Agege	24.5	22.8	27.5	28.7	
3.	Government Senior College, Agege	21.6	28.31	21.6	27.9	

DISTRICT II

4.	CMS Senior Girls' Secondary School, Bariga.	26.0	33.8	36.0	35.5	38.9
5.	Ayedere Ajibola Senior High School, Ketu	29.5	33.5	24.0	37.3	
6.	Anthony Village Senior High School	23.1	23.5	23.2	26.0	
7.	Ipakodo Senior Grammar School, Ikorodu.	36.4	31.14	20.5	29.4	
8.	Government Snr. College, Ikorodu.	23.4	34.0	21.5	33.3	
9.	Eva Adelaja Girls' Snr. School, Bariga.	46.0	54.7	51.0	56.6	
10.	Ifako Comprehensive Senior School, Ifako	19.43	55.4	18.7	34.2	
11.	Gbagada Senior Gram. School, Gbagada.	25.6	45.4	33.5	34.8	
12.	Model Snr. College, Igbokuta	45.0	60.5	48.3	52.8	
13.	Epe Snr. Gram. School Epe.	20.00	21.3	26.5	35.5	
14.	Falomo Snr. High, L/Island	26.8	40.3	28.5	31.2	
15.	Lakowe Community Snr. Ibeju	19.0	42.0	19.0	27.2	
16.	Pobuna Snr Gram. School Poka	22.6	48.2	26.5	56.6	36.5
17.	Kuramo Snr. College, Victoria Island.	32.3	33.14	33.74	32.2	

DISTRICT III

13.	Epe Snr. Gram. School Epe.	20.00	21.3	26.5	35.5	36.5
14.	Falomo Snr. High, L/Island	26.8	40.3	28.5	31.2	
15.	Lakowe Community Snr. Ibeju	19.0	42.0	19.0	27.2	36.5
16.	Pobuna Snr Gram. School Poka	22.6	48.2	26.5	56.6	
17.	Kuramo Snr. College, Victoria Island.	32.3	33.14	33.74	32.2	36.5

DISTRICT IV

18.	Ajigbeda Girls' Snr. High, Surulere	20.4	40.4	25.5	40.3	33.8
19.	Gbaja Boys' Senior School, Surulere	10.9	35.7	22.9	25.9	
20.	Eletu Odibo Snr. High School, Abule-Oja.	18.5	39.14	24.5	30.5	
21.	Lagos City College Snr. Sabo	26.3	27.0	08.3	26.2	
22.	Birrel Avenue Snr., Sabo	20.7	61.0	29.2	37.0	
23.	Government Snr. College, Lagos.	29.5	40.6	29.1	37.3	

24.	Herbert Macauley Girls' Senior School, Makoko.	17.7	45.14	20.5	30.5	
DISTRICT V						
25	Festac Girls' Secondary School, Festac.	30.0	34.4	25.73	30.9	
26	Agboju Snr. Grammar School	18.7	32.7	30.8	36.6	36.9
27.	Iworo/Ajido Snr. High School.	8.0	36.4	22.4	28.7	
28.	Badagry Girls Senior Grammar School, Badagry	45.8	51.6	51.4	51.2	
DISTRICT VI						
29.	Bolade Senior Grammar School, Oshodi.	24.53	31.49	38.3	34.3	
30.	Oshodi Comp. Snr. High School, Oshodi.	20.4	49.2	24.4	33.7	
31.	Estate Snr. Grammar School, Ilupeju.	20.7	58.4	25.6	42.1	
32.	Ilupeju Snr. Grammar School, Ilupeju.	20.5	59.0	28.0	39.5	35.4
33.	Okota Snr. Grammar School, Okota.	17.0	33.14	20.0	26.4	
34.	Ikeja Snr. Grammar School, Ikeja	23.7	21.43	23.0	23.9	
35.	Eko Boys' Snr. High, Mushin.	26.8	28.9	27.1	48.1	

APPENDIX C

DEPARTMENT OF EDUCATIONAL ADMINISTRATION UNIVERSITY OF LAGOS

Personal Data Inventory (PDI) For Teachers

This instrument is designed to determine your own evaluation of your classroom performance as well as relationships with the 'significant others' in the school. Kindly give objective ratings to the items as they relate to you.

Section A – Personal Data

1. Name of School: _____
2. Location of School: _____
3. School Status: _____
4. Type of School: _____
5. Sex of Teacher: _____
6. Age: _____ 7. Marital Status: _____
8. Teacher's Qualification(s): _____
9. (a) Position in School: _____
(b) Rank: _____
10. Teaching Experience: _____

SECTION B

Directions: Please use the five-point scale below to rate yourself on each of the following items. Rate the items most descriptive of you at the low end and those about which you are not sure in the middle. For each item record the number which represents your response in the blank space on the right side of the items.

Thus, "Most like me" - 5 4 3 2 1
"Least like me" - 1 2 3 4 5

S/N	PART 1: TEACHER PREPARATION	SA	A	D	SD
1	I took between 20-24 units of education courses.				
2	I am not concerned with co-curricular activities.				
3	I demonstrate difficult activities with teaching aids.				
	PART B: KNOWLEDGE OF SUBJECT MATTER	SA	A	D	SD
4	I exhibit profound mastery of subject matter.				
5	I make adequate preparation for lessons.				
	PART C: SUBJECT MATTER DELIVERY	SA	A	D	SD
6	I present subject matter with clarity.				
7	I entertain students' comments during lesson.				
8	I complement verbal evaluation with written assignments.				
9	I manage the classroom well.				
10	I cannot cope with students' rudeness.				
11	Communication in my class is one-way affair without any student participation.				

- PART D: TEACHER CHARACTERISTICS/TRAITS** SA A D SD
- 12 I work more conscientiously if remuneration is adequate.
- 13 I don't perform less when recognised authorities place premium on nepotism.
- 14 I always chat during free periods.
- PART E: INTEREST IN THE JOB OF TEACHING** SA A D SD
- 15 I have interest in the job of teaching.
- 16 I give assignments often and mark them promptly.
- 17 I perform better when there is high prospects for fringe benefits.
- 18 I give extra lessons without remuneration.
- PART F: RELATIONSHIP WITH STUDENTS** SA A D SD
- 19 I motivate students to prepare ahead of the class and reward efforts.
- 20 I am more concerned with close personal supervision of students' progress.
-

APPENDIX D

DEPARTMENT OF EDUCATIONAL ADMINISTRATION UNIVERSITY OF LAGOS Students' Personal Data Inventory

Date: _____ Age: _____ Sex: _____
 Nationality: _____ Religion: _____ LED: _____
 Town or Village: _____

Directions: Please use the four-point scale below to rate yourself on each of the following items. Rate the items based on the extent to which you agree or disagree that they are most descriptive of you. For each item tick the column which represents your response on the right side of the items.
 SA = 4, A = 3, D = 2, SD = 1.

Items	Interest In Home-Work and Assignment	SA	A	D	SD
1	When the assigned work is too long or unusually hard, I either stop or do the easier parts of the assignment.				
2	If you have to be absent from class, you make up missed lessons and notes immediately.				
3	Even though an assignment is dull and boring I stick to it until it's completed.				
4	Put off doing written assignments until the last minute.				
5	Always completing and submitting assignments on time.				
6	I do begin on assignments as soon as the teachers give them and do not allow them to pile up.				
	ACADEMIC PERFORMANCE	SA	A	D	SD
7	I get extra lessons at home after school hours.				
8	My mother checks my school work at home daily.				
9	Older siblings assist me to do my home-work/assignment.				
10	I usually have enough time to read at home.				
11	My parents usually encourage me to study well for my examinations.				
12	Prevails on parents to procure textbooks for me.				
13	Regularly work with the books.				
14	Spend up to five hours daily watching TV.				
15	Hold peer opinions in high esteem.				

APPENDIX E

DEPARTMENT OF EDUCATIONAL ADMINISTRATION UNIVERSITY OF LAGOS

Teacher Performance Indicators (TPI)

To be completed by Students

This checklist is designed to elicit information on the contribution of teacher classroom performance to student's academic achievement in secondary schools. This is purely an academic exercise and all responses shall be treated confidentially. Kindly rate the issues specified objectively as they affect your individual teacher.

Section A: Students' Personal Data

Name of school: _____
Sex: _____ Class: _____ Age: _____

Section B: Teachers' Efficiency/Effectiveness

Directions: Please provide information on the quality of classroom performance of duty by each of the specified teachers using the values provided in the following scale.

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

ITEMS	TEACHERS CHARACTERISTICS	Individual Teacher Rating				
		Subject Teachers				
		Bio 1	Econs 2	Eng 3	Maths 4	Yoruba 5
1	Prepares adequately for each lesson.	1	2	3	4	5
2	Gives assignments often and marks them.	1	2	3	4	5
3	Manages the class well.	1	2	3	4	5
4	Not concerned with co-curricular activities.	1	2	3	4	5
5	Invigilates examinations thoroughly.	1	2	3	4	5
6	Cannot cope with students' rudeness.	1	2	3	4	5
7	Is a good example to students.	1	2	3	4	5
8	Has a mastery of his subject matter.	1	2	3	4	5
9	Presents subject matter clearly.	1	2	3	4	5
10	Does not keep records of students' marks, problems.	1	2	3	4	5
11	Relates well with parents and visitor.	1	2	3	4	5
12	Does not relate well with students.	1	2	3	4	5
13	Entertains students' comments during the lessons.	1	2	3	4	5
14	Motivates students to prepare for new topics ahead of the class and rewards efforts through praises.	1	2	3	4	5

15	Complements verbal evaluation with written assignments.	1	2	3	4	5
16	Concerned with class discipline.	1	2	3	4	5
17	Teaches well without using teaching aids.	1	2	3	4	5
18	Attends college assemblies.	1	2	3	4	5
19	Gives extra lessons without remuneration.	1	2	3	4	5
20	Chats always during free periods.	1	2	3	4	5
21	Has a cheerful disposition.	1	2	3	4	5
22	Demonstrates interest in teaching.	1	2	3	4	5
23	Moody most of the time.	1	2	3	4	5
24	Shows keen interest in keeping abreast with new developments in his/her subject.	1	2	3	4	5
25	Communication in the classroom is a one-way affair without any feedback from students.	1	2	3	4	5

APPENDIX F
UNIVERSITY OF LAGOS
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING
AKOKA, YABA

TEACHER APPRAISAL FORM

Dear Sir/Madam,

PERSONAL INFORMATION

Kindly complete the information below as appropriate. This is for academic exercise only and any information supplied shall be treated confidentially and kept secret.

Thanks.

SECTION A

1. Name of Appraisee _____
2. Position in School _____
3. Rank of Appraisee _____
4. Subject(s) Taught _____
5. Department: _____
6. Highest Educational Qualification: _____
7. Date of First Appointment: _____
8. Date of First Posting to Present School: _____
9. Date of First Promotion: _____
10. Date of Last Promotion: _____

SECTION B (Please tick as appropriate)

1. Knowledge of subject matter:

(a) Highly proficient	[]
(b) Good, with further potential	[]
(c) Still much to learn	[]
(d) Severely lacking	[]

2. Class organization:

(a) Very good	[]
(b) Usually good	[]
(c) Not so good	[]
(d) Bad	[]

3. Attention to routine matters:

(a) Very conscientious	[]
(b) Usually careful and serious	[]
(c) Somewhat conscientious	[]
(d) Not conscientious	[]

4. Subject matter/lesson preparation:
 - (a) Very well prepared and adequate []
 - (b) Well prepared but inadequate []
 - (c) Not well prepared and inadequate []
 - (d) Unprepared and unsatisfactory []
5. Subject matter delivery:
 - (a) Very inspiring to students' learning and achievement of all objectives []
 - (b) Inspiring to students' learning and achievement of some objectives []
 - (c) Somewhat inspiring to students' learning and achievement of one objective []
 - (d) Uninspiring to students' learning and invariably no objective achieved []
6. Leadership and organisation ability:
 - (a) Above standard []
 - (b) Acceptable []
 - (c) Below standard []
 - (d) Unacceptable []
7. Type of learning environment (availability of resource materials, teacher enthusiasm and commitment)
 - (a) Very satisfactory []
 - (b) Satisfactory []
 - (c) Not so satisfactory []
 - (d) Unsatisfactory []
8. Contribution to the growth of the school
 - (a) Outstanding []
 - (b) Satisfactory []
 - (c) Marginal []
 - (d) Unsatisfactory []
9. School/community relationship:
 - (a) Very satisfactory []
 - (b) Satisfactory []
 - (c) Not so satisfactory []
 - (d) Unsatisfactory []
10. Stimulation of pupils' learning attitude
 - (a) Outstanding []
 - (b) Satisfactory []
 - (c) Marginal []
 - (d) Unsatisfactory []
11. Encouragement of inter-relationship of subject fields:
 - (a) Outstanding []

- (b) Satisfactory []
- (c) Marginal []
- (d) Unsatisfactory []

SECTION C: PERSONAL QUALITIES/TRAITS

12. Personal Appearance:
 - (a) Neat, tidy and well-dressed []
 - (b) Generally well turned out []
 - (c) Often untidy, inappropriately dressed []
 - (d) always untidy and ill-dressed []
13. Initiative
 - (a) Always takes correct action without supervision []
 - (b) usually acts on own initiative with little supervision []
 - (c) Requires occasional guidance []
 - (d) Requires constant detailed guidance []
14. Adaptability:
 - (a) Adapts very willingly []
 - (b) Adapts somewhat willingly []
 - (c) Adapts with some difficulty to new situations []
 - (d) Unwilling to adapt []
15. Personality profile;
 - (a) Investigative: analytical, curious and independent []
 - (b) Social: sociable, resourceful, self-motivated, attentive to others; needs and enterprising []
 - (c) Artistic: creative, eclectic and impulsive []
 - (d) Conventional: conformist, obedient, scrupulous []
16. Relationship with colleagues
 - (a) Always friendly, cooperative and well mannered []
 - (b) Usually friendly, cooperative but uneven tempered []
 - (c) Occasionally friendly, sometimes hostile and uncooperative []
 - (d) Always unfriendly, defiant and aggressive []
17. Relationship with students
 - (a) Very friendly always []
 - (b) Friendly at times []
 - (c) Friendly reservedly []
 - (d) very unfriendly []
18. Hardworking
 - (a) Never stops []
 - (b) Seldom flags []
 - (c) Occasional prompting needed []

(d) Always much prompting needed. []

19. Integrity and discreteness

- (a) Very honest and discrete in revealing secrets []
- (b) Honest and reveals necessary secrets []
- (c) Dishonest and somewhat loud []
- (d) Very dishonest and very loud []

20. Interest in courses, seminars, workshops, etc

- (a) Very interested and actively involved []
- (b) Interested and keen in participating []
- (c) Somewhat interested and partially participates []
- (d) Uninterested and unwilling to participate []

SECTION D: Comments/Remarks

Suggestion (if any) _____

APPENDIX G

Classroom Observation Scale

Directions: At the end of the lesson or observation period, take a few moments to indicate the frequency with which each of the following events was observed. Circle a '1' if the event occurred rarely if ever. Circle a '5' if the event occurred very frequently. Circle the numbers in between (i.e. '2', '3', '4') to indicate gradations in the frequency of occurrence.

S/N	Event	Rating				
1	Teacher presentation	1	2	3	4	5
2	Clarity of presentation	1	2	3	4	5
3	Teacher enthusiasm	1	2	3	4	5
4	Teacher questioning	1	2	3	4	5
5	Rote memory or fact questions	1	2	3	4	5
6	High level or why questions.	1	2	3	4	5
7	Personal opinion questions	1	2	3	4	5
8	Teacher academic feedback	1	2	3	4	5
9	Teacher probes, prompts & redirects	1	2	3	4	5
10	Pupil-to-pupil academic interaction.	1	2	3	4	5

Source: Brophy, Culter, Crawford, Evertson & King (1995) and Evertson & Veldman (1981). Adapted.

Appendix H

Classroom Environment and Climate Scale

Directions: At the end of the lesson, take a few minutes to rate each scale in terms of its presence in the classroom. If, for e.g. all materials needed by the students were ready for them, the rating for scale no 3 should be a '5'. If, on the other hand, none of the materials needed by the students were ready for them, the rating of the scale No. 3 should be a '1'. The remaining three nos. ('2', '3', '4') represent varying degrees of 'readiness'.

S/N	Event	Rating (1 = low, 5= high)				
1	Degree of visibility.	1	2	3	4	5
2	Suitable traffic patterns.	1	2	3	4	5
3	Materials are ready.	1	2	3	4	5
4	Conveys value of curriculum.	1	2	3	4	5
5	Students are task oriented.	1	2	3	4	5
6	Consistently enforces work standards.	1	2	3	4	5
7	Relaxed, pleasant atmosphere	1	2	3	4	5
8	Teacher listens to students	1	2	3	4	5

Source: Emmer, E. T., Sanford, J.P.; Clements, B. S.; and Martin, J. (1982). Improving classroom management and organization in junior high schools. An experimental investigation. Austin, Texas Research and Development Centre for Teacher Education, University of Texas.

APPENDIX I

Mean Scores as rated by trained and untrained teachers

S/N	Untrained Teachers	Untrained Teachers n = 21	Trained Teachers n = 49	Untrained Teachers with Higher Degree n = 3	Trained Teachers with higher Degree n =
1.	I make adequate preparation for lessons.	4.57	4.51	4.33	4.62
2.	I exhibit profound mastery of subject matter.	4.43	4.53	4.00	4.88
3.	I present subject matter with clarity.	4.43	4.45	4.33	4.50
4.	I have interest in the job of teaching.	4.19	4.04	4.33	4.00
5.	I entertain students' comment during lesson.	4.43	4.12	5.00	3.88
6.	I cannot cope with students' rudeness.	2.43	2.78	3.33	3.13
7.	I give assignment often and mark them promptly.	3.76	3.78	3.67	3.25
8.	I am not concerned with co-curricular activities.	2.90	2.69	1.67	3.00
9.	I give extra lessons without remuneration.	3.24	3.21	2.67	3.25
10.	I always chat during free periods.	2.52	2.49	1.33	2.75
11.	I work more conscientiously if remuneration is adequate.	3.52	3.37	3.67	4.50
12.	I complement verbal evaluation with written assignments.	3.62	3.86	3.33	3.88
13.	I demonstrate difficult activities using teaching aids.	3.86	3.67	3.33	3.50
14.	I manage the classroom well	4.76	4.24	4.33	4.50

15.	Communication in my class is one-way affair without any student participation	1.95	2.45	1.33	2.50
16.	Is high prospect for fringe benefits.	3.71	3.24	3.67	4.38
17.	I don't perform less when recognized authorities place premium on nepotism.	3.14	3.10	3.33	3.88
18.	Close personal supervision of students' progress.	4.43	3.80	4.00	4.25
19.	Interest in my subject	4.67	4.33	4.67	4.50
20.	I motivate students to prepare ahead of the class and reward efforts through praise.	4.38	4.24	4.00	4.25

Correlation of Self-efficacy = 0.9987/0.9953

APPENDIX J
Description of the Teachers Performance Rating Measures

Rating	Description
Exceeds Expectation	The teacher always exceeds the set target; consistently produces exceptionally high quality work that optimizes student performance.
Meets Expectations	The performance of the teacher consistently fulfils responsibilities resulting in quality work enhances student performance/behaviour in a positive manner. This performance standards is expected of all teachers.
Needs Assistance.	The teacher's performance inconsistently meets the targets set resulting in not too good work and below average student achievement or behaviour.
Unsatisfactory	The teacher does not adequately fulfill his/her responsibilities, resulting in work performance lacking in quality and inhibiting student performance and/or behaviour.

Source: Author: Adapted from Dwindie County Public Schools Electronic Journal, accessed on the 3/30/2007. 4.30pm.

APPENDIX K
RESULT OF ACHIEVEMENT TEST

S/N	SCHOOL'S NAME	BIO \bar{X}	ENG \bar{X}	MATHS \bar{X}	TOTAL $\bar{X}(\text{AV})$
1	Bolade Senior Grammar School	24.53	31.49	38.3	34.3
2	Aboru/Ifesowapo	24.5	32.0	28.5	32.15
3	Kuramo Senior College	22.3	33.14	33.74	38.4
4	CMS Girls' Snr	26.0	33.8	36.0	35.5
5	Ayedere Ajibola Senior	29.5	33.5	24.0	37.3
6	Festac Girls' Secondary School	30.0	34.4	25.73	30.9
7	Stadium High Senior School	20.36	40.36	25.5	40.3
8	Epe Senior Grammar School	20.00	21.33	26.5	35.5
9	Anthony Village Senior High School	23.08	23.54	23.23	26.02
10	Falomo Senior High School	26.75	40.25	28.5	31.19
11	Girls' High School, Agege	24.5	22.75	27.5	28.7
12	Gbaja Boys' Senior High School, Lagos.	10.86	35.71	22.86	25.86
13	Oshodi Comprehensive Senior High Sch.	20.4	49.2	24.4	33.68
14	Estate Senior Grammar School, Ilupeju	20.67	58.4	25.6	42.09
15	Lagos City College, Sabo	26.33	27.0	08.33	26.17
16	Eletu Odigbo Senior High School, Abule Oja.	18.5	39.14	24.5	30.46
17	Herbert Macauley Girls' Senior School, Ebute Metta	17.71	45.14	-	39.56
18	Ilupeju Senior Grammar School	-	59.0	28.0	39.46
19	Okota Senior Secondary Grammar Schools.	17.0	33.14	20.0	26.40
20	Ipakodo Senior Grammar School	26.4	31.14	-	26.18
21	Birrel Avenue, Sabo	20.67	61.0	29.2	37.00
22	Government Senior College, Agege.	21.6	28.31	21.6	27.9
23	Government Senior College, Ikorodu	23.43	34.0	21.5	33.3
24	Ifako Comprehensive Senior High Schoo.	19.43	55.43	18.67	34.18

	Gbagada.				
25	Gbagada Senior Grammar School.	25.6	-	33.5	30.05
26	Government College, Lagos	29.5	40.6	29.11	37.34
27	IKeja Senior Grammar Schoo, Oshodi	46.00	54.67	51.0	56.61
28	Eva Adelaja Girls' Senior Secondary School, Bariga.	25.00	46.25	-	43.25
29	Eko Boys' Snior High School, Mushin.	26.8	28.86	27.08	48.08
30	Lakowe Community Senior School, Lakowe	19.0	42.0	19.0	27.15
31	Badagry Senior Grammar School.	45.8	51.6	51.4	51.20
32	Iworo/Ajido Senior High School, Badagry.	08.00	36.4	22.4	28.70
33	Laboju Senior Grammar School.	18.7	32.7	30.8	26.55
34	Pobuna	22.6	48.2	26.5	46.6
35	Model College, Igbokuta.	45.00	60.5	48.3	52.81

APPENDIX L

ACADEMIC SESSIONS

Departments	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2007/ 2008	2008/ 2009
First Degree: Arts & Social								
Science	90	99	132	120	148	164	372	470
M.Ed							54	39
First Degree HKHE	43	39	46	35	62	39	235	66
M.Ed.							18	08
First Degree Science & Tech.	37	39	32	51	69	50	155	147
M.Ed							36	24
PGDE	-	-	-	90	-	125	151	110

Source: Sandwich Unit, Faculty of Education, University of Lagos.