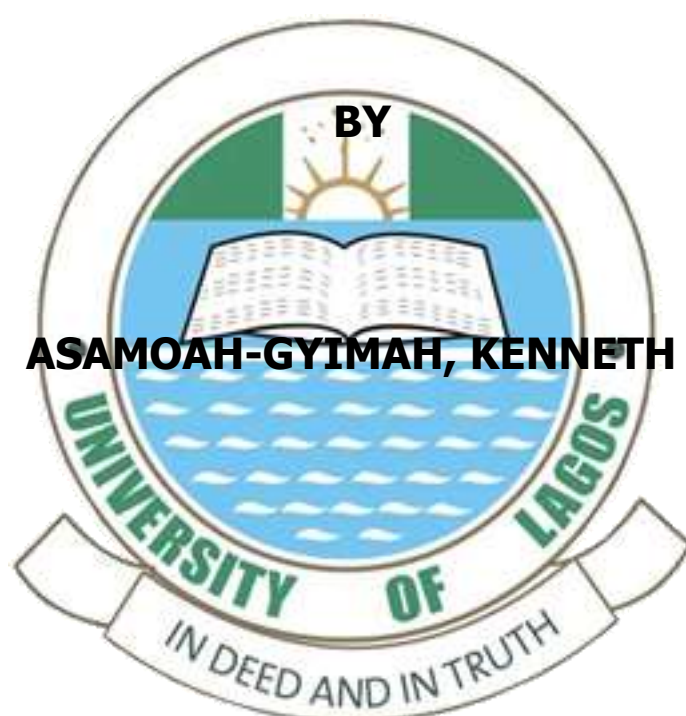


**IMPACT OF SCHOOL SELF-EVALUATION
TRAINING ON IMPROVEMENT OF BASIC SCHOOLS
IN BRONG-AHAFO REGION, GHANA**



OCTOBER, 2011

**IMPACT OF SCHOOL SELF-EVALUATION TRAINING ON
IMPROVEMENT OF BASIC SCHOOLS IN BRONG-AHAFO
REGION, GHANA**

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**B.Ed. (PSYCHOLOGY WITH MATHEMATICS AS TEACHING
SUBJECT)., M.Phil. MEASUREMENT AND EVALUATION, CAPE
COAST.**

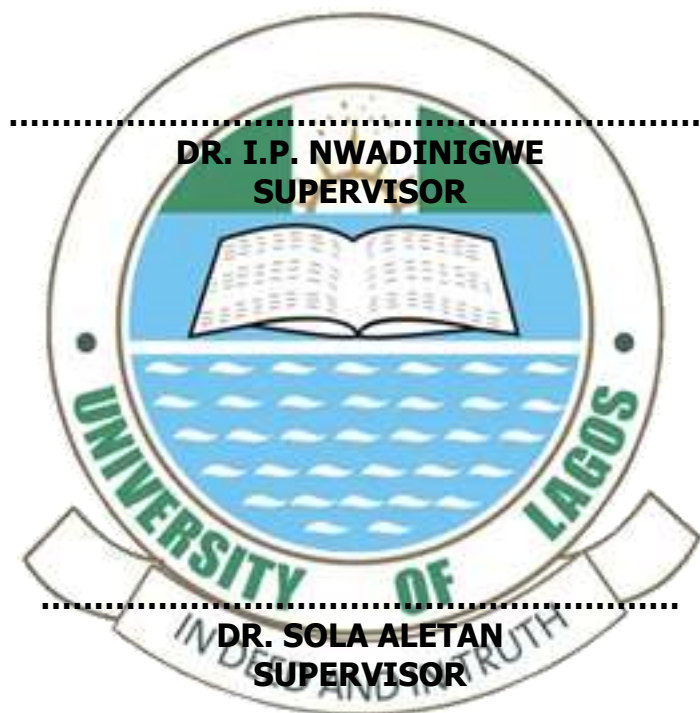
**A THESIS IN THE DEPARTMENT OF EDUCATIONAL
FOUNDATIONS (WITH PSYCHOLOGY)
SUBMITTED TO THE SCHOOL OF POST GRADUATE STUDIES,
UNIVERSITY OF LAGOS**

**IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D)
IN MEASUREMENT AND EVALUATION OF THE
UNIVERSITY OF LAGOS**

OCTOBER, 2011

APPROVAL

**This research report has been approved by the Department of
Educational Foundations and the School of Postgraduate Studies,
University of Lagos**



.....
PROFESSOR A.M. OLUSAKIN
Head of Department

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Date

**SCHOOL OF POSTGRADUATE STUDIES
UNIVERSITY OF LAGOS**

CERTIFICATION

This is to certify that the thesis

IMPACT OF SCHOOL SELF-EVALUATION TRAINING ON IMPROVEMENT OF
BASIC SCHOOLS IN BRONG-AHAFO REGION, GHANA

Submitted to the School of Postgraduate Studies
University of Lagos

For the award of the degree of
**DOCTOR OF PHILOSOPHY (Ph.D.) IN MEASUREMENT AND
EVALUATION**

Is a record of original research carried out

By

ASAMOAH-GYIMAH, KENNETH

In the **Department of Educational Foundations**

AUTHOR'S NAME	SIGNATURE	DATE
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1ST SUPERVISOR'S NAME	SIGNATURE	DATE
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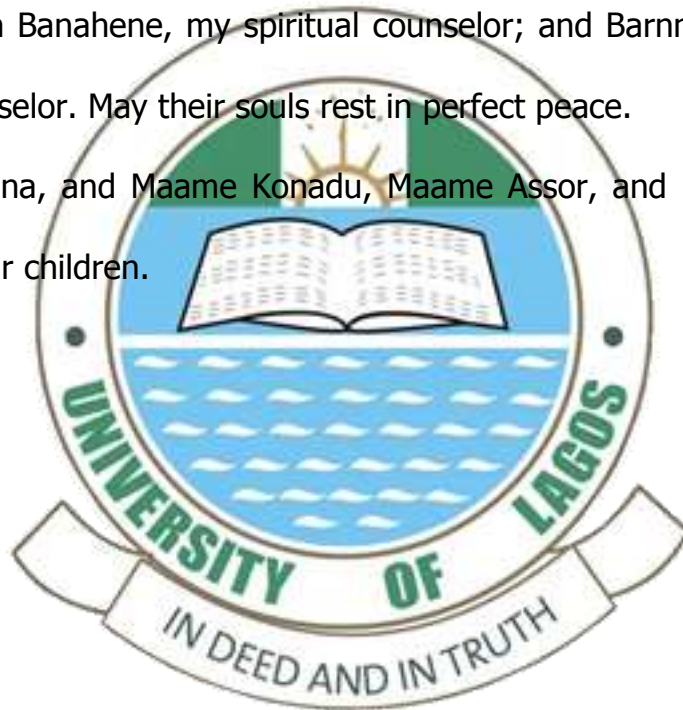
DEDICATION

To The Glory of Almighty God, my Lord Jesus Christ on whom I cast my every care.

My parents Maame Assor and Late Paapa Asamoah.

To the memory of my Beloved late brothers, Kwadwo Amoako, Pastor Owusu-Mensah Banahene, my spiritual counselor; and Barnnor Mensah, the academic counselor. May their souls rest in perfect peace.

My wife Angelina, and Maame Konadu, Maame Assor, and Nana Asamoah-Gyimah Jnr. our children.



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Jesus my savior, brother friend; On whom I cast my every care; On whom for all things I depend; Inspire and then accept my prayer, Amen. The Lord God Omnipotent, all knowing and all sufficient, with him all things are possible. To Him be all Glory and Honour forever and ever, Amen.

My deepest gratitude goes to my supervisors; Dr. I.P. Nwadinigwe, (who played an important role in accomplishing my cherished dream of undertaking a Ph.D programme at the Great UNILAG) and Dr Sola Aletan. They tirelessly and patiently provided the kind of intellectual interaction and feedback best suited to my style of work. They have had a significant impact on my way of life and thinking which reaches far beyond this Thesis. May the Good Lord richly bless and reward them abundantly.

I express my sincere gratitude to the University of Cape Coast, Cape Coast, (my employers) for granting me the study leave with pay to pursue this study. To them I say, I am very grateful and thankful for the honour done to me.

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Professor O. M. Omoegun; Dr. (Mrs.) I.I. Abe; Rev. (Fr.) Dr. F.M. Isichei; Dr. M.B. Ubangha; Dr. C.E. Okoli; Dr. (Mrs.) B. Makinde; Dr. (Mrs.) O.M. Alade; and Dr. A.A. Oni for their encouragement, constructive criticisms and assistance, especially at the Departmental seminars, which contributed to making the work what it is right now. I express my deep appreciation to the administrative staff of the Department of Educational Foundations for their assistance during my stay in the Department.

I am particularly grateful to the head masters, teachers and students of all the schools where data for this study were collected for their cooperation. I appreciate the warm reception, resilience and keen interest they exhibited throughout the period of data collection for this study. To my field assistants, I thank you all for the dedicated service you rendered on the field which enabled me to have the relevant data for this work.

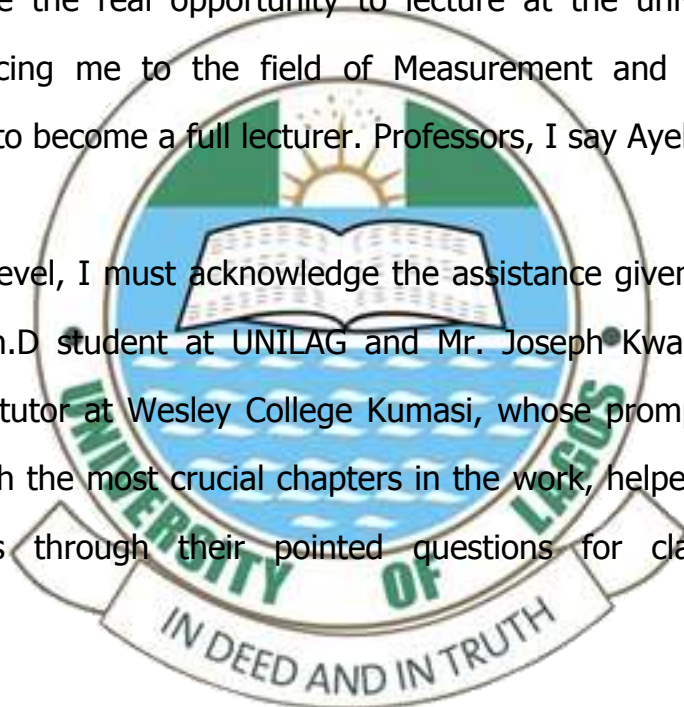
I take this opportunity to express my warm appreciation to my mother Madam Adwoa Assor as well as my siblings; Kwasi Arko, Abena Sekyiwa, Abena Konadu and Kofi Sarpong; nephews; Theophilus Asare Bediako, Emmanuel Adjei Karikari and my wonderful niece Faustina Adjei (Akos) as well as Kwabena Yeboah, my cousin.

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Ahmadu Bello University, Zaria, I say our struggle shall not be in vain. God will surely see us through.

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At a different level, I must acknowledge the assistance given by Miss Peace C. Israel, a Ph.D student at UNILAG and Mr. Joseph Kwaku Asamoah, a senior English tutor at Wesley College Kumasi, whose prompt assistance in reading through the most crucial chapters in the work, helped to strengthen those portions through their pointed questions for clarifications and suggestions.



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Above all, I exalt the Almighty God, our Lord Jesus Christ and the Holy Ghost for his mercies endureth forever in my life and family.

ABSTRACT

This study examined the impact of school self-evaluation training on improvement of basic schools in Brong-Ahafo Region, Ghana. A total of 85 Junior High School (JHS) teachers and 129 JHS two students were sampled from three public basic schools in the Sunyani Municipal Education directorate. The participants from the three selected schools were assigned to one of the two training groups or the control group. The municipality, circuits, schools and a JHS two stream were selected using the multistage sampling technique.

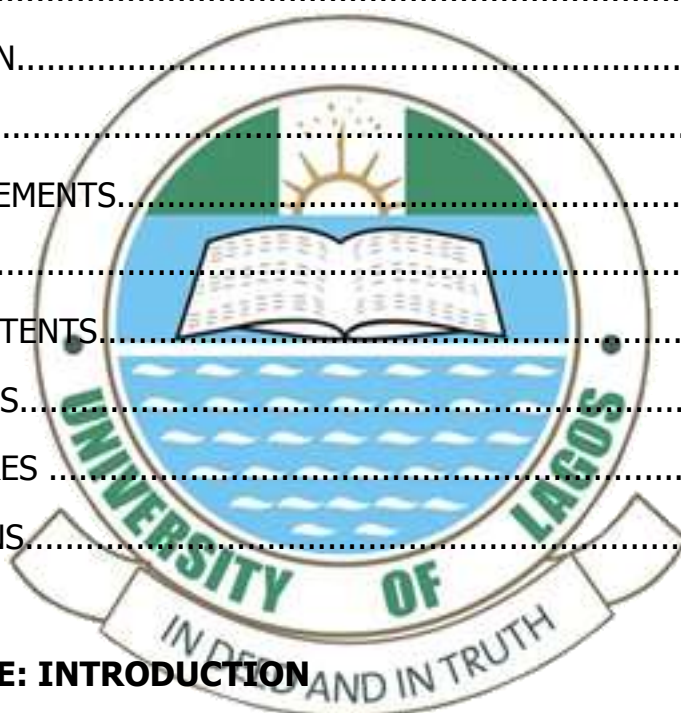
The study employed the quasi experimental pre-test, post-test control group design. The research instruments used to generate data for the study were Personal Data Questionnaire (PDQ), Institutional Self-Evaluation Questionnaire (ISEQ) and the checklist on documents for school self-evaluation. Eight research questions and eight hypotheses were formulated to guide the study. All the hypotheses were tested using the two-way analysis of covariance (ANCOVA) statistic at 0.05 level of significance. A post hoc test analysis was done using the Fisher's Least Square Method for all results found to be statistically significant.

The results of the data indicated that all the eight null hypotheses tested were rejected in favour of the treatment groups. The findings of the study revealed that establishment of SSE mechanisms which are in line with the knowledge-base of EER and the school stakeholders' involvement in defining the criteria of SSE went a long way in boosting the schools ability in evaluating themselves, however, the establishment of SSE mechanisms which are in line with the knowledge-base of EER had the strongest impact. The study has shown that the establishment of SSE mechanisms which are in line with the knowledge-base of EER significantly exhibit a higher performance in the structure of the curriculum, overall quality of attainment, supports for pupils', climate and relationship, and the resources indicators than those exposed to school stakeholders' involvement in defining the criteria of SSE. The findings show that no significant difference in the performance on the teaching and learning processes and, the management,

leadership and quality assurance indicators, exists between participants exposed to the knowledge-base of EER and those exposed to school stakeholders' involvement in defining the criteria for SSE. The study has also shown that teachers significantly exhibit higher performance in the structure of the curriculum and the overall quality of attainment indicators. These findings were placed within the existing body of knowledge and their implications for educational practices were discussed.

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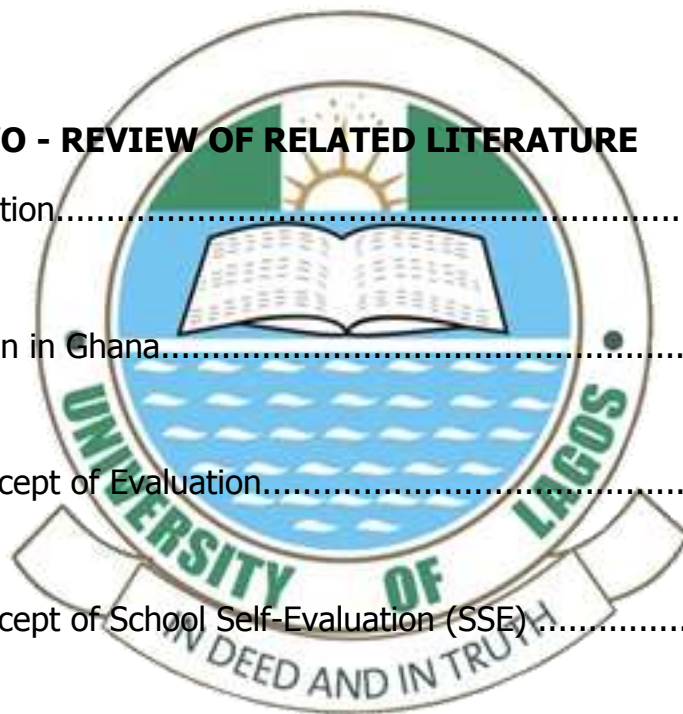
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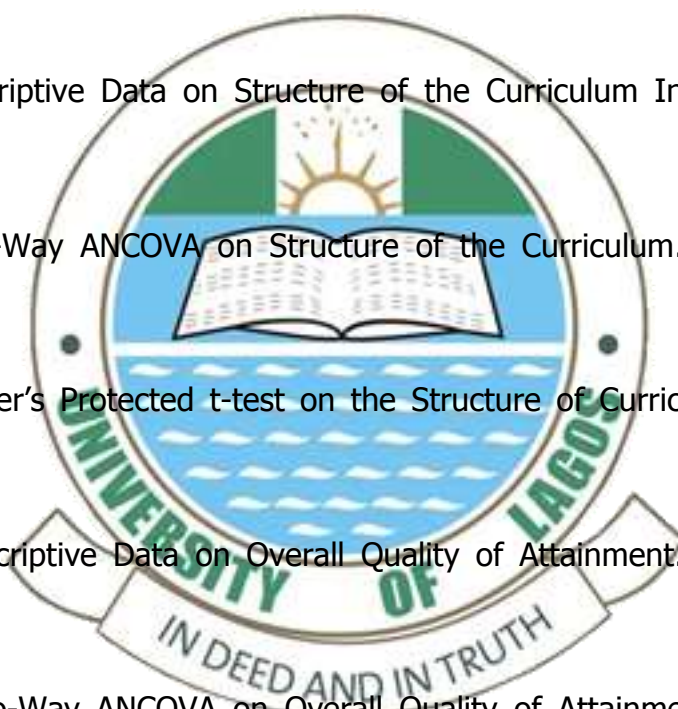
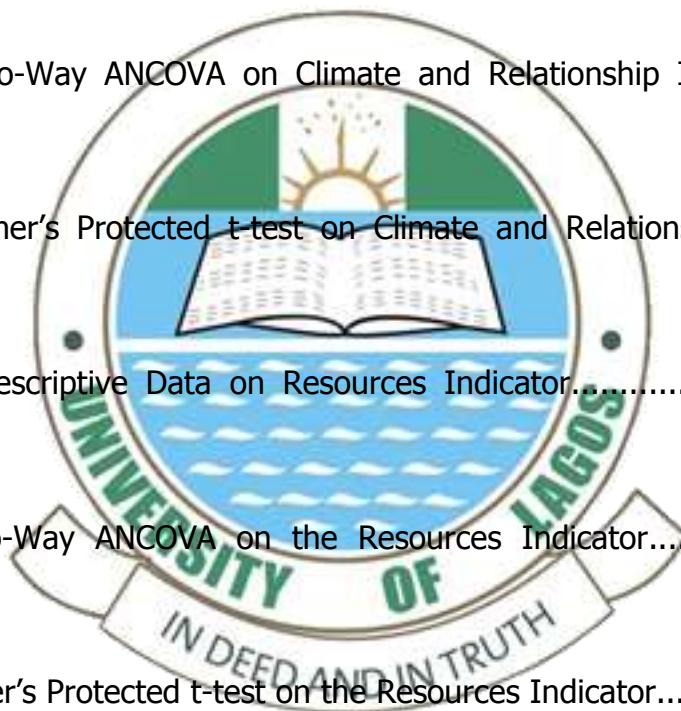
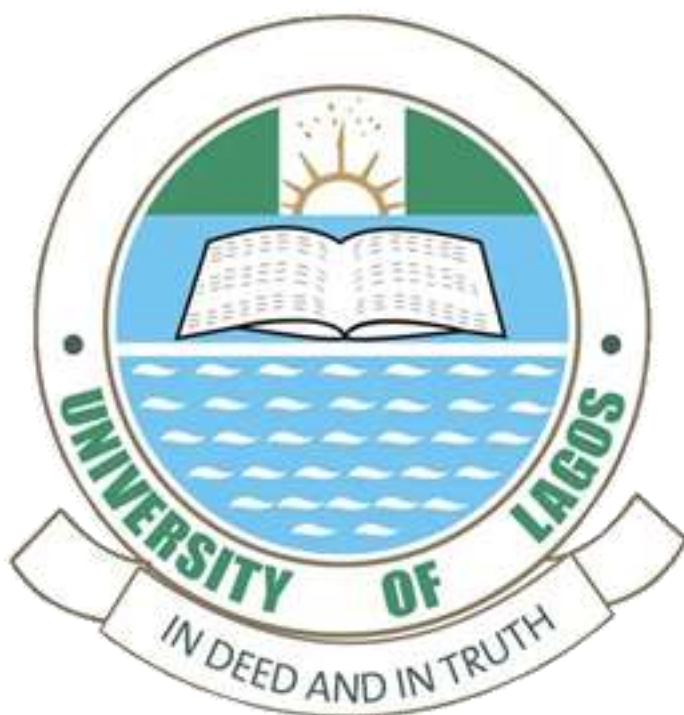


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ABBREVIATIONS

ADEA	Association of Development of Education in Africa
ADRA	Adventist Development Relief Agency
ANCOVA	Analysis of Covariance
ASPECT	Association of Professionals in Education and Children Trust
BECE	Basic Education Certificate Examination
CET	Cognitive Evaluation Theory
CIPP	Content Input Process Product
CRS	Catholic Relief Service
CRT	Criterion Reference Test
CS	Circuit Supervisor
CSA	Community School Alliances
DEO	District Education Officer
DSTS	District Teacher Support Team
EARC	Educational Assessment and Research Centre
EdQual	Educational Quality in Low Income Countries
EER	Educational Effectiveness Research
EFA	Education for All
fCUBE	Free Compulsory Universal Basic Education
GES	Ghana Education Service
GTZ	German Development Cooperation
IEGWB	Independent Evaluation Group World Bank
ILP	Improving Learning through Partnership
ISEQ	Institutional Self-Evaluation Questionnaire
JICA	Japan International Cooperation Agency
NGO	Non Governmental Organization
OFSTED	Office for Standards in Education, Children's Services and Skills
PEMT	Planning Evaluation Monitoring and Transference into Action
PMT	Performance Monitoring Test
PPM	Participatory Performance Monitoring
PTA	Parent Teacher Association

QUIPS	Quality Improvement in Primary School
SADC	Southern African Development Community
SDT	Self Determination Theory
SGBS	School Governing Boards
SICI	Standard International Conference of Inspectorate
SMC	School Management Committee
SMT	School Management Teams
SSE	School self-evaluation
STME	Science Technology and Mathematics Education
TLM	Teaching Learning Material
USAID	United States Agency for International Development
WSD	Whole School Development
WSDP	Whole School Development Programme
WSE	Whole School Evaluation

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

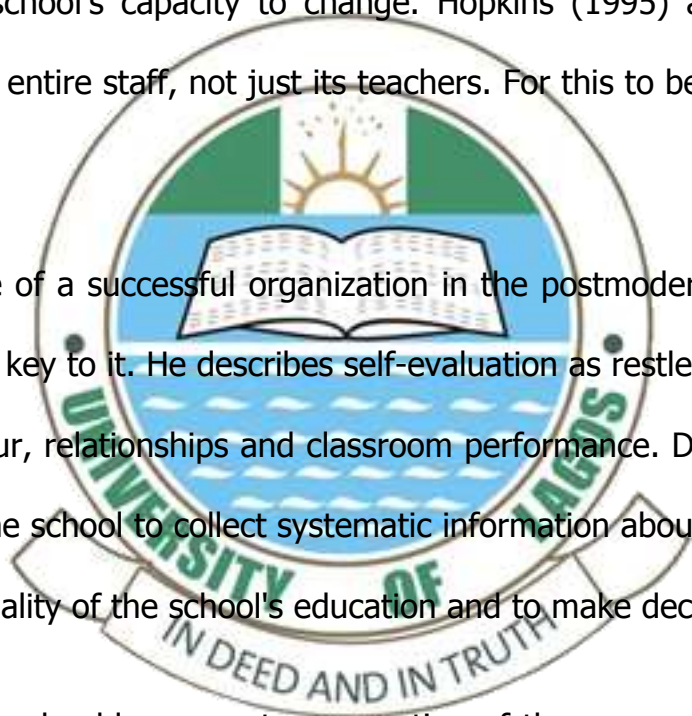
Improving the quality of education is currently a central concern of educational policy makers and implementers in many countries of which Ghana is no exception. Recent decades have witnessed a remarkable rise in the regulation of public services and servants, education being a case in point. According to Martin (2005), external evaluation and inspection have been important elements of this trend. He continued that increasingly, however, as the limitations of external surveillance systems have become clear, the concept of internal or self-evaluation has grown in importance. It is argued that enabling individual schools and teachers to self-evaluate effectively is a complex task that will require help and support from the community of professional evaluators (McNamara and O'Hara, 2008a).

Contemporary educational systems are characterized by increased demands for effectiveness and quality as a result of the increased investment in education, and accountability demands by parents and society. It is argued that the above conditions require schools to be involved in a continuous process of improvement. The rapidly growing interest in the fields of school effectiveness and school improvement is a response to these trends (Teddle & Reynolds, 2000).

Whereas the school effectiveness movement searches for appropriate and reliable ways to measure outcomes and school quality, school improvement aims at a systematic change of the school's internal processes in order to achieve educational goals more effectively in conditions of uncertainty (Harris, 2001). Thus, school improvement aims to improve pupils' achievement through enhancing the school's capacity to change. Hopkins (1995) argues that successful schools need a learning staff defined inclusively as the entire staff, not just its teachers. For this to be achieved, it is argued that school self-evaluation (SSE) can play a major role.

Barber (1996) argues that the essence of a successful organization in the postmodern world is the search for improvement and that effective self-evaluation is the key to it. He describes self-evaluation as restless in its quest for evidence in a school's transparent sense of purpose, behaviour, relationships and classroom performance. Devos (1998) argues that SSE should be seen as a process mainly initiated by the school to collect systematic information about the school functioning, to analyze and judge this information regarding the quality of the school's education and to make decisions that provide recommendations.

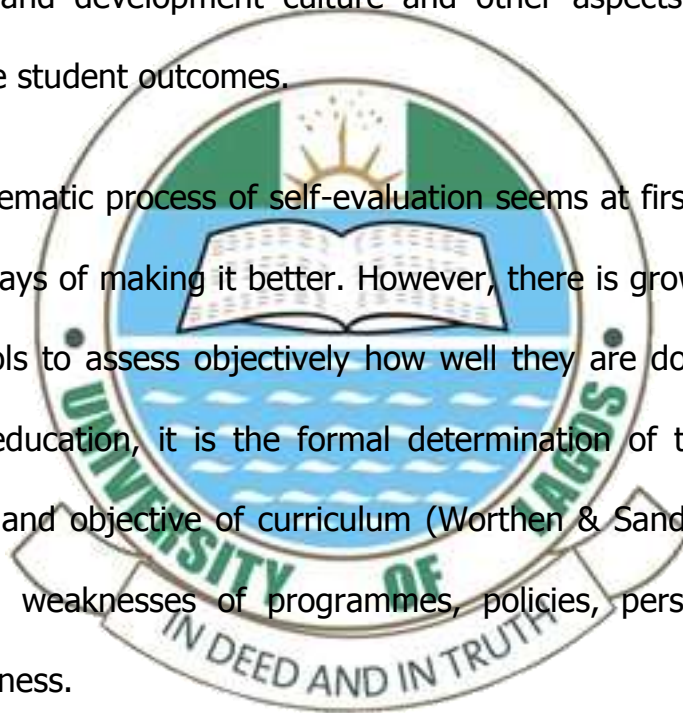
Schools are increasingly being asked to shoulder a greater proportion of the responsibility for developing and guaranteeing educational quality, which involves, among other things, their being expected to engage in self-evaluation. This means that they are required to arrive at an appraisal of their current functioning (strengths and weaknesses) as a point of departure for a plan or vision for the future. Self-evaluation is a procedure which is initiated and carried out by the school in order to



describe and evaluate its own functioning (Blok, Slegers, & Karsten, 2005). School self-evaluation provides an opportunity for the whole school community, including students, parents and all staff, to reflect on student outcomes in the light of their goals, targets and key improvement strategies from the previous planning cycle. This includes examining teaching and learning strategies, the performance and development culture and other aspects of school operations so they can be strengthened and supported to improve student outcomes.

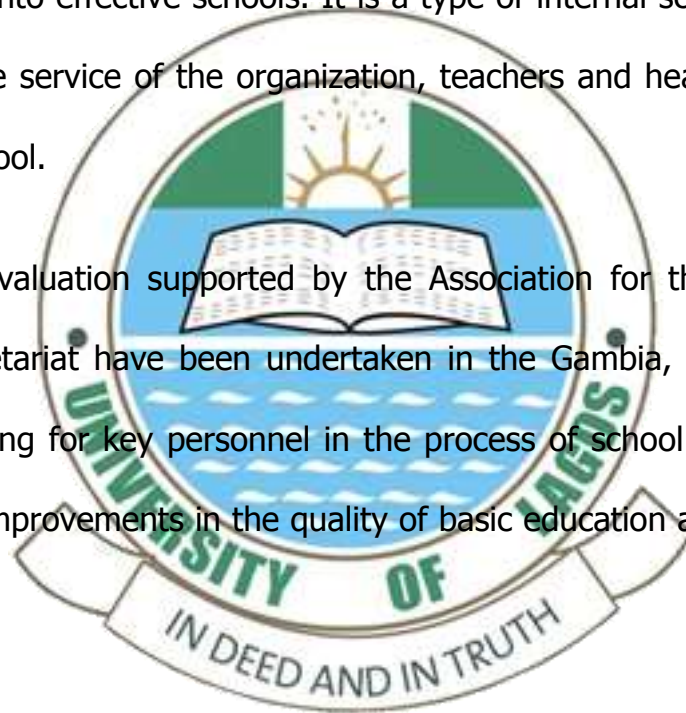
The idea of schools undertaking a systematic process of self-evaluation seems at first sight a simple means of assessing the effectiveness of a school and finding ways of making it better. However, there is growing evidence that the process provides a valuable tool for teachers and schools to assess objectively how well they are doing (Moulten, 2009). Evaluation is the determination of a thing's value. In education, it is the formal determination of the quality, effectiveness or value of a programme, product, project, process and objective of curriculum (Worthen & Sanders, 1987; Saunders, 1999). Evaluation involves assessing the strengths and weaknesses of programmes, policies, personnel, products, process, system and organizations to improve their effectiveness.

School self-evaluation (SSE) concerns a type of educational evaluation at school level that is initiated and at least, partly controlled by the school itself. The Department of Education, Pretoria South Africa (2002), sees school self-evaluation as a school-based evaluation carried out by teachers, principals, School Management Teams (SMT), School Governing Boards



(SGBs), School Management Committees (SMCs) and School Communities at large. Through self-evaluation, schools are able to prepare effectively for external evaluation and ultimately school self-improvement. Pang (2006) defines school self-evaluation as a mechanism through which schools can help themselves, review the quality of education, improve continuously and develop themselves into effective schools. It is a type of internal school evaluation where the professionals responsible for the programme or core service of the organization, teachers and head teachers, carry out the evaluation of their own organization, that is, the school.

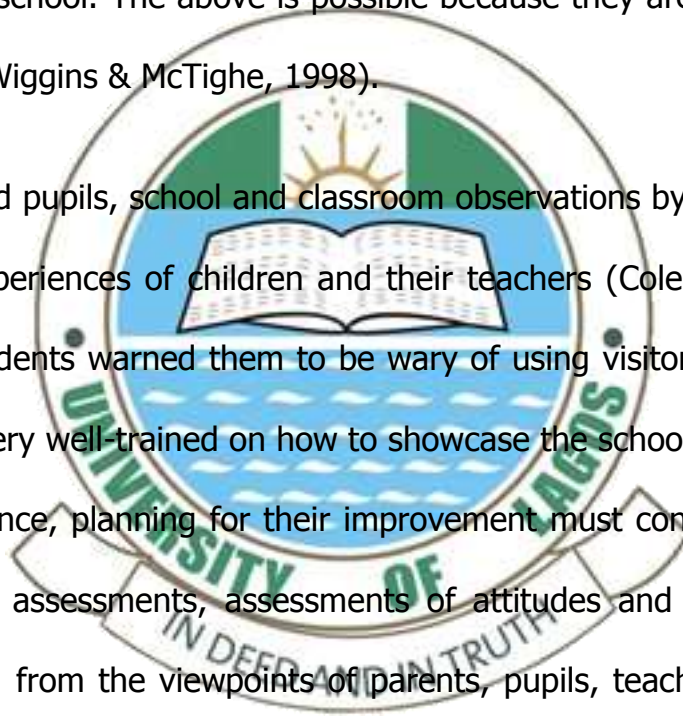
Probably, workshops on school self-evaluation supported by the Association for the Development of Education in Africa (ADEA) and the Commonwealth Secretariat have been undertaken in the Gambia, Swaziland, Kenya and Ghana since the year 2000. These have provided training for key personnel in the process of school self-evaluation, which is regarded as a fundamental element for sustainable improvements in the quality of basic education and the standards achieved in schools in sub-Saharan Africa.



In most cases, positive educational outcomes reflect good quality management by school heads and other members of staff who hold key responsibilities. The high quality outcomes are established and maintained by effective assessment of progress which leads to sharing of best practices and successfully addressing shortcomings. Fundamental to these processes is the

acceptance that things could be done differently and possibly better and that, pupils, whatever their background and ability, could achieve more. In such schools, there is a culture of self critiquing where members of staff are open with one another about their work and share their successes and difficulties. This opens the doors for colleague teachers to replicate best practices for the common good of the school. The above is possible because they are receptive to new ideas and continually seek more effective ways of working (Wiggins & McTighe, 1998).

In the experience of many teachers and pupils, school and classroom observations by visiting/external school inspectors have failed to touch the real day-to-day experiences of children and their teachers (Coleman, 1995). Coleman continues that in one secondary school in his study, students warned them to be wary of using visitors' impressions as a source of evidence. The students said they have become very well-trained on how to showcase the school at its best for outsiders and inspectors. Schools are complex organizations; hence, planning for their improvement must consider a wide range of outcomes. These should include: test results, teachers' assessments, assessments of attitudes and behaviour of pupils, and pupils' work. Additionally, it must look at the school from the viewpoints of parents, pupils, teachers, specific groups of pupils who may feel excluded from aspects of school life and people outside the school who have an insight on areas of its work, especially the District Education Office (DEO) staff, Educational Consultants, Resource Personnel and many others. The school could use knowledge of what is happening in classrooms to identify the school's strengths, weaknesses and areas for development.



In particular, it could take into account how every aspect of the school impacts on individuals and groups of pupils. (MacBeath, Boyd, Rand, & Bell, 1996; MacBeath, 2004; MacBeath, 1999).

MacBeath and McGlynn (2003) have maintained that the increased emphasis on self-evaluation places greater responsibility on school leaders to develop good quality assurance systems. It is this type of responsibility that schools should be given, replacing many of the strands of accountability that have in recent years made school leadership so bureaucratic. The Association of Professionals in Education and Children's Trusts (ASPECT) (2005) recognizes that school self-evaluation is one of the foundations on which genuine school improvement is built, and that it has an integral part at the heart of the drive to raise standards in schools continually. They continue by saying that school evaluation provides a coherent framework located within overall planning systems and are well aligned to other principal features of the improvement process. Self-evaluation by teachers is prompted by the idea that teachers, just like pupils, are engaged in a process of development. As members of a learning organization, teachers themselves are also learning. Self-evaluation would, therefore, seem to be a promising approach in order to get to grips with this process.

Airasian and Gullickson (1997) have indicated that pupils are privileged witnesses in school self-evaluation. Involving pupils in the process of self-evaluation is, for many teachers, a good way of getting a clear picture of the main characteristics of their classroom behaviour. The idea that pupils can, and should have their say in various areas is gaining increasing acceptance

and there are a variety of arguments for pupils' participation in school self-evaluation. Fullan (1991) draws attention to consulting pupils/students on their experiences with the educational learning process in schools as a potentially valuable area of research and action. Pupils are the focus of education and thus, constitute a relevant group when it comes to providing information on education. Pupils' input can be innovative and sometimes confrontational. The judgements expressed by pupils send a powerful message. By involving pupils in school self-evaluation, existing suspicions are confirmed, but attention is also drawn to sometimes unexpected problem areas. Inspired by the trend towards school self-evaluation as well as students' participation, there is the need to focus on how self-evaluation impacts on students' learning and school effectiveness as a whole.

Based on the Independent Evaluation Group World Bank (IEGWB) (2006) report from Schooling Access to Learning Outcomes, an evaluation of World Bank support to Primary Education in Ghana reveals the following findings:

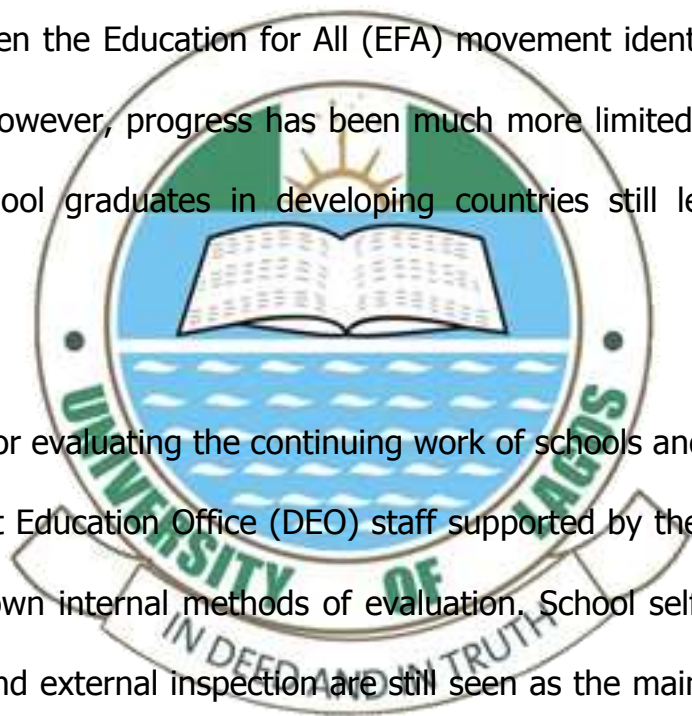
- access to primary schools has improved rapidly throughout the developing world since 1990, but learning outcomes have lagged behind;
- it is possible and desirable to avoid a trade-off between quantity and quality, but poorly managed rapid expansion approaches can undermine improvement in learning outcomes;



- the World Bank and its partners need to reorient the Fast Track Initiative toward a dual emphasis on primary school completion and learning outcomes improvement.

The report maintained that the proportion of children in the developing world who have access to primary education has increased considerably since 1990, when the Education for All (EFA) movement identified six goals for meeting the learning needs of children, youth and adults. However, progress has been much more limited on the EFA goal of improving learning outcomes. A majority of primary school graduates in developing countries still leave school without having met their countries' minimum learning standards.

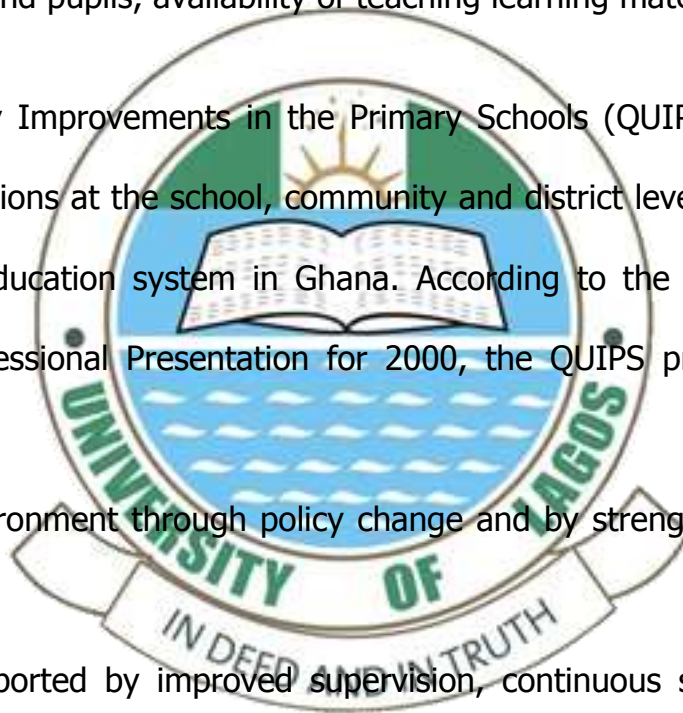
Generally in Ghana, the responsibility for evaluating the continuing work of schools and ensuring that all children receive their entitlement mostly lies with the District Education Office (DEO) staff supported by the head teacher and staff. Progressively, the main role has shifted to schools' own internal methods of evaluation. School self-evaluation is not yet very common in Ghana, where national examinations and external inspection are still seen as the main force in the evaluation of schools and pupil performance. Yet, there appears to be a growing drive for internal self-evaluation arising from the desire of schools and teachers to assess for themselves how well they are doing and the increasing trend towards decentralization and greater local school autonomy. The Quality Improvement in Primary Education Programme (QUIPS) 1997-2003 has brought self-



evaluation to the fore in planning schools. Teachers, parents, pupils, School Management Committee (SMC) and Parent Teacher Association (PTA) members, as well as all other stakeholders in education have been meeting regularly to discuss aspects of the school's activities like examination results, teacher-student relations, school-community relations, pupils' learning, punctuality of both teachers and pupils, availability of teaching learning materials and many others.

Through the USAID sponsored Quality Improvements in the Primary Schools (QUIPS) programme, it is expected that the programme, which supported interventions at the school, community and district levels, will result in a considerable increase in the effectiveness of the primary education system in Ghana. According to the United States Agency for International Development (USAID) Ghana's Congressional Presentation for 2000, the QUIPS programme concentrated on four major results. These are:

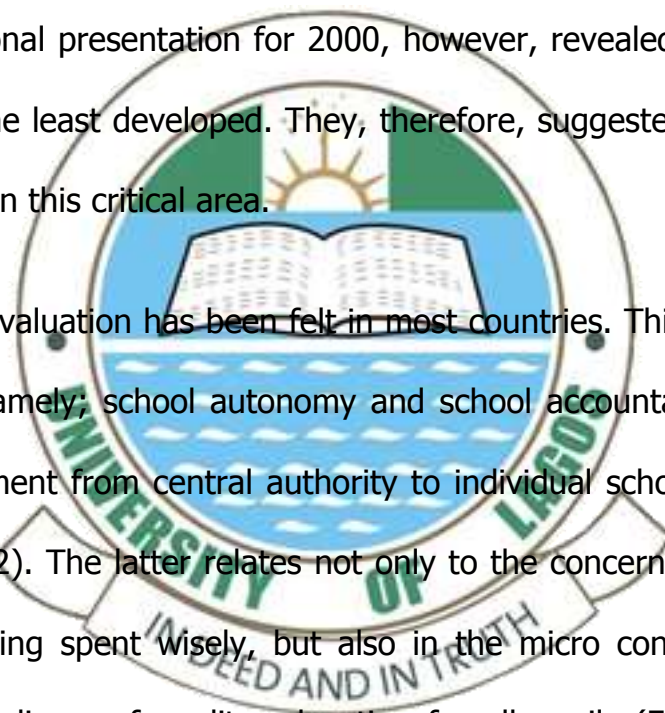
- improvement of the learning environment through policy change and by strengthening the capacity of districts to plan and manage resources effectively;
- effective classroom teaching supported by improved supervision, continuous student assessment and pupil-centered teaching methods;
- greater community involvement in local education through assistance to local school associations and committees;



- improving educational policies in curriculum development, educational personnel management, capacity building at the local level, and school data collection and analysis.

The QUIPS Community-School Improvement Plan ties the first to third objectives together and helps all parties to manage implementation process. The congressional presentation for 2000, however, revealed that the fourth critical area, especially school data collection and analysis, is the least developed. They, therefore, suggested an effective self-evaluation within the schools as a means of making progress in this critical area.

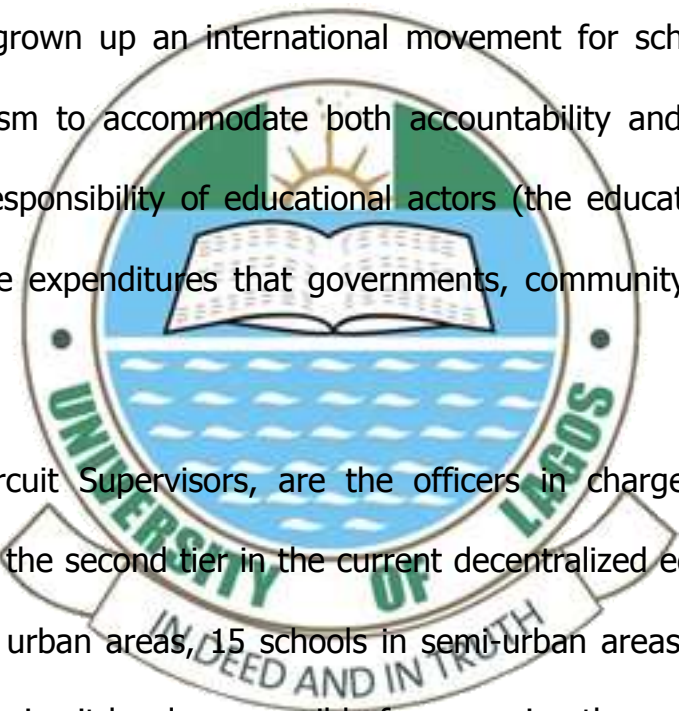
The impact of the policy of school self-evaluation has been felt in most countries. This has manifested in the prioritization by many governments of two key goals namely; school autonomy and school accountability. The former involves transferring primary responsibility for pupil achievement from central authority to individual schools, pupils, and teachers (McNamara & O'Hara, 2006; Fullan & Hargreaves 1992). The latter relates not only to the concern of Ministries of Education to show that the money invested in education is being spent wisely, but also in the micro context, to the fact that schools are now increasingly held accountable for the delivery of quality education for all pupils (Ferguson, Early, Fidler & Ouston, 2000; Lindahl, 2001). To ensure effective school self-evaluation in the form of the maintenance and indeed constant improvement of standards, it is required that schools and teachers will become more autonomous, take greater responsibility for budgets, planning, quality teaching and learning as well as professional development. Paradoxically, these same schools and teachers



are to be the subject of sophisticated surveillance procedures including the quality of the general school curricular, recommending quality textbooks, organizing school-based in-service training, increased student testing, benchmarking, and regular inspection of lesson delivery among others. McNamara and O'Hara (2008b) maintain that self-evaluation is now a mainstream concept and most education systems throughout Europe are to a greater extent scrambling to find ways of integrating it into the everyday lives of schools. The considerable number of initiatives and interventions being developed by governments, both developed and developing, as well as trans-national bodies give an indication of the seriousness with which the development of school self-evaluation capacity is now viewed.

The World Bank and its partners, donor agencies like United States Agency for International Development (USAID), Japan International Cooperation Agency (JICA), German Development Cooperation (GTZ), African Development Bank (ADB) and Non-Governmental Organizations (NGOs) like the Adventist Development Relief Agency (ADRA), Catholic Relief Services (CRS) and others have provided various educational interventions at various levels of education in various parts of Ghana. However, the effectiveness and sustainability of World Bank and other donor agencies' contributions to primary education, access and learning improvements have not been assessed after their interventions. The Ministry of Education, the Ghana Education Service, Metropolitan, Municipal and District Assemblies are still lobbying for more educational support even without consulting the schools to know what their needs are (Ministry of Education, 2006).

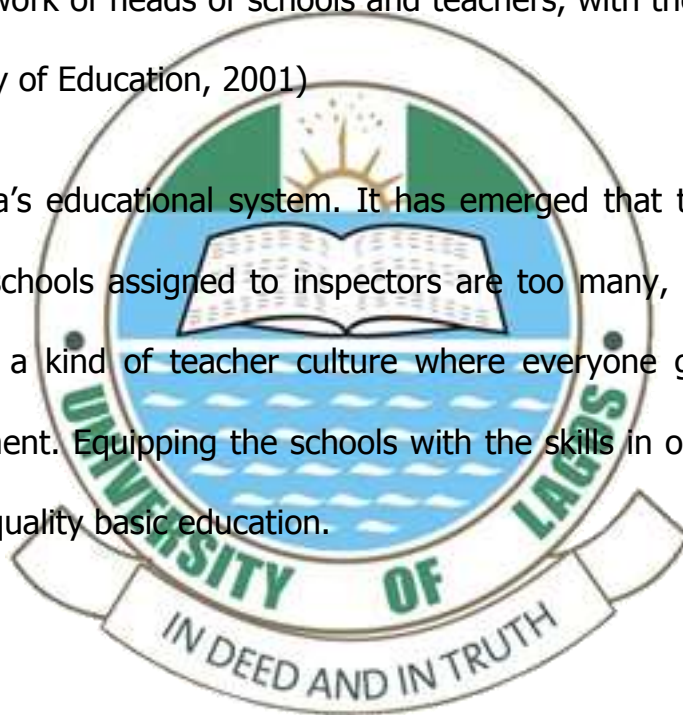
Evaluation and self-evaluation in particular, is valued for its contribution to professional growth and institutional development. In the economic and political climate of the late 1980s, the focus of school evaluation has shifted in response to governments' desire to ensuring a balance between quality and quantity in relation to output measures and returns on public investment. More recently, there has grown up an international movement for school improvement, seeking to promote forms of self-evaluation as a mechanism to accommodate both accountability and development. This is reflected in an increasing tendency towards greater responsibility of educational actors (the educational institutions itself, head teachers, teachers and pupils) to account for the expenditures that governments, community, parents/guardians continue to make towards quality assurance.



School inspectors, now designated Circuit Supervisors, are the officers in charge of educational standards in specific communities (circuits) only. Circuits are the second tier in the current decentralized educational management system. Circuit Supervisors are assigned 20 schools in urban areas, 15 schools in semi-urban areas, and 10 schools in rural communities. The new policy makes inspectors at the circuit levels responsible for assessing the needs of schools in their circuits, deciding what needs to be done and planning in-service training in the subjects in which teachers at specific levels require them. Besides finding solutions to pedagogic and managerial problems in the schools, Circuit Supervisors are required to attend all in-service training workshops in their circuits (Opoku-Asare, 2006). Circuit Supervisors write and submit periodic reports on

the progress of activities in their districts of operation to their respective District Directors of Education who pass them on to headquarters through the Regional Directors of Education. The idea of appointing inspectors for the districts is to strengthen supervision provided by school heads. Circuit Supervisors are expected to visit each school in their assigned circuits, at least, three times per term to supervise the work of heads of schools and teachers, with the view of helping them to improve upon their professional performance (Ministry of Education, 2001)

Inspection is an integral part in Ghana's educational system. It has emerged that the Ghana education Service (GES) has inadequate inspection personnel and schools assigned to inspectors are too many, hence they are not able to pay regular visits to the schools. This has led to a kind of teacher culture where everyone gets by with minimum general teacher ineffectiveness and low pupil achievement. Equipping the schools with the skills in order to evaluate their own activities will promote effective monitoring towards quality basic education.



1.2 Statement of Problem

The quality of education offered by most schools in Ghana is hampered by many problems and shortcomings such as lack of quality professional practice in school supervision. The 1994 Education Reforms Review Committee Report identified

inadequate inspection personnel and too many schools assigned to circuit supervisors, for any meaningful supervision to take place, as part of the problems affecting the quality of basic education in Ghana.

Incidentally, the President's Committee Report on Education in Ghana (2002) also mentions the quality problems plaguing the system of school inspection in Ghana as: lack of personnel with the requisite academic qualification and/or rank for appointment as Circuit Supervisors; lack of office and/or residential accommodation in many areas; poor conditions of service and working environment and inaccessibility of some schools in some circuits.

All the successful quality improvement initiatives in Ghana, for example, QUIPS, PMT, DTST, WSDP among others concentrated on the improvement of teaching and learning outcomes in basic schools through trainings provided to teachers, school heads, circuit supervisors and other district education officials, school management committees, parent teacher associations and district teacher support teams. However, there were no interventions on teachers and students evaluating their school. All interventions with regard to evaluation mainly concentrate on the head teachers and external supervisors like the SMCs, PTAs, circuit supervisors and other district education office staff.

It can be inferred here that poor supervision of educational processes partly accounts for the perceived fallen standard of Ghanaian education which until the mid-1970s, had the reputation for being one of the most highly developed and efficient educational systems in Sub-Saharan Africa (King, Glewwe, & Alberts, 1992). Opoku-Asare, 2006 has also found that quality

control in Ghana's system of educational delivery is both inefficient and ineffective. He continued that, it has emerged that the GES has inadequate inspection personnel which has led to a kind of teacher culture where everyone get by with minimum - general teaching ineffectiveness and low pupil learning achievement. In their conclusions they suggested, augmenting numbers and equipping inspectors with the requisite logistics will promote effective monitoring towards quality basic education. The views of the above authors suggest that the Ghana Education Service is either not attracting or recruiting the right calibre of inspection personnel or it has not put in place a sustained programme for conduction or upgrading its corps of supervisors to monitor educational standards at regional, district, circuit and school levels effectively. There also seems to be a gap in research on the process of inspection, implementation of inspection recommendations and post-inspection supervision.

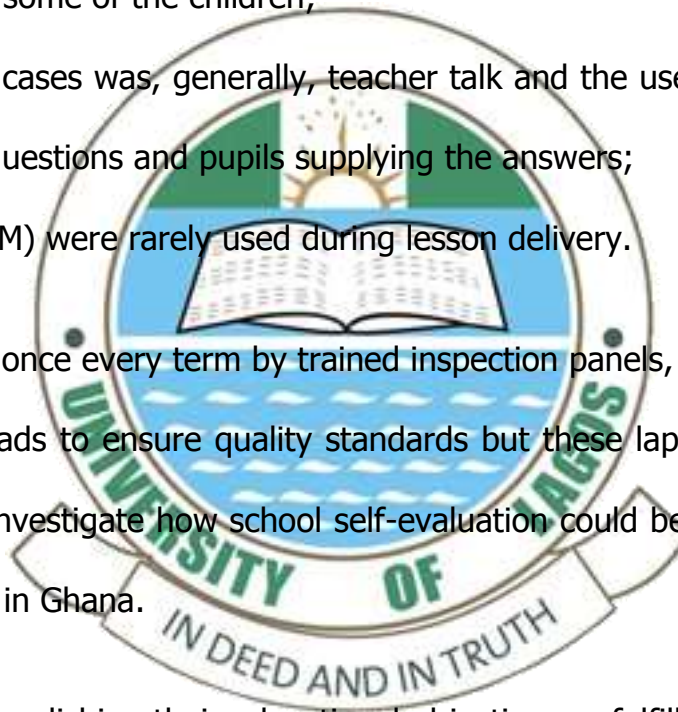
A study conducted by the Ministry of Education and Sports (2007) on the Attainment of Quality Basic Education in Ghana: Multi-Site Case Study of Basic Schools in the Central Region made the following field observations:

- schools do not follow the official time tables for teaching as indicated on the walls of their classrooms. In the schools fewer subjects are done each day (usually between 3 and 4 subjects);
- lesson plans are written as a matter of duty and not as a teaching aid;
- the use of lesson plans for teaching was generally absent;

- use of textbooks in the schools was very minimal; most pupils in the schools do not have their own textbooks purchased by parents;
- language seems to be a big issue in teaching and learning in the basic schools; teaching was done using the English language to the disadvantage of some of the children;
- mode of lesson delivery in most cases was, generally, teacher talk and the use of “question and answer method” with the teachers always posing the questions and pupils supplying the answers;
- teaching / learning materials (TLM) were rarely used during lesson delivery.

All these schools are inspected at least once every term by trained inspection panels, District Teacher Support Teams (DTST), Circuit Supervisors (CS) and school heads to ensure quality standards but these lapses are still prevalent in most Ghanaian schools. It is, therefore, necessary to investigate how school self-evaluation could be employed as a means of curbing these unfortunate trends in the basic schools in Ghana.

In schools which are successful in accomplishing their educational objectives or fulfilling their administrative, instructional, or service functions, management is kept simple. The approach to continuous improvement works through systematic monitoring, evaluation and making use of assessment and performance data. The majority of the well-endowed schools have long been carrying out self-evaluation of every aspect of their work but it is not known whether it has always been performed



objectively and systematically, in the opinion of the researcher, to the extent that is expected. Therefore, a strengthened system of school self-evaluation to improve efficiency and accountability for school outcomes is needed and this makes this study necessary.

1.3 Conceptual Framework

The study was guided by the following different approaches to evaluation:

- i. The Objectives-Oriented Evaluation Approaches
- ii. Management-Oriented Evaluation Approaches
- iii. Consumer-Oriented Evaluation Approaches
- iv. Expertise-Oriented Evaluation Approaches
- v. Adversary-Oriented Evaluation Approaches
- vi. Naturalistic-and Participant-Oriented Approaches



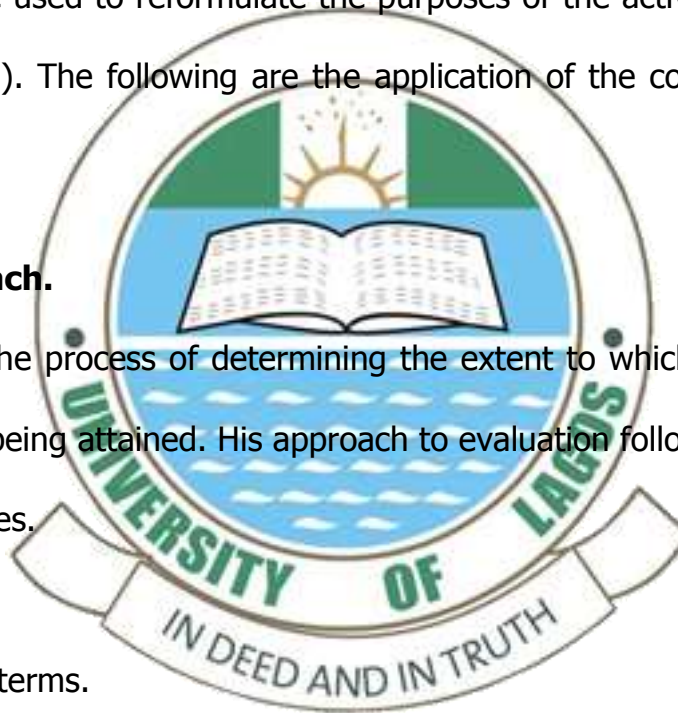
1.3.1 Objectives-Oriented Evaluation Approaches

The distinguishing feature of an objective-oriented evaluation approach is that the purposes of some educational activity are specified, and then evaluation focuses on the extent to which those purposes are achieved. In education, the activity could range from a day's classroom lesson or as complex as the whole school enterprise. The information gained from the objectives-oriented evaluation could be used to reformulate the purposes of the activity, the activity itself or the assessment procedures (Worthen & Sanders, 1987). The following are the application of the concepts in various teaching/learning and inspection practices.

(a) The Tylerian Evaluation Approach.

Tyler (1950) conceives evaluation as the process of determining the extent to which the educational objectives of a school programme or curriculum are actually being attained. His approach to evaluation followed these steps:

1. Establish broad goals or objectives.
2. Classify the goals or objectives
3. Define objectives in behavioural terms.
4. Find situations in which achievement of objectives can be shown
5. Develop or select measurement techniques.
6. Collect performance data



7. Compare performance data with behaviorally stated objectives.

Discrepancies between performance and objectives would lead to modifications intended to correct the deficiency, and the evaluation cycle would be repeated. Tyler's rationale is generally regarded as logical, scientifically acceptable, and readily adoptable by educational evaluators including school self-evaluation (Worthen & Sanders, 1987)

(b) **Metfessel and Michael's Evaluation Paradigm**

An early approach to evaluation suggested by Metfessel and Michael (1967) is heavily influenced by the Tylerian tradition.

Eight steps in the evaluation process were proposed as follows:

1. involve the total school community as facilitators of programme evaluation;
2. formulate cohesive model of goals and specific objectives;
3. translate specific objectives into a communicable form applicable to facilitating learning in the school environment;
4. select or construct instruments to furnish measures allowing inferences about programme effectiveness;
5. carrying out periodic observations using content-valid tests, scales and other behavioural measures;
6. analyze the data using appropriate statistical methods;
7. interpret the data using standards of desired levels of performance over all measures;
8. develop recommendations for further implementation, modification and revision of broad goals and specific objectives.

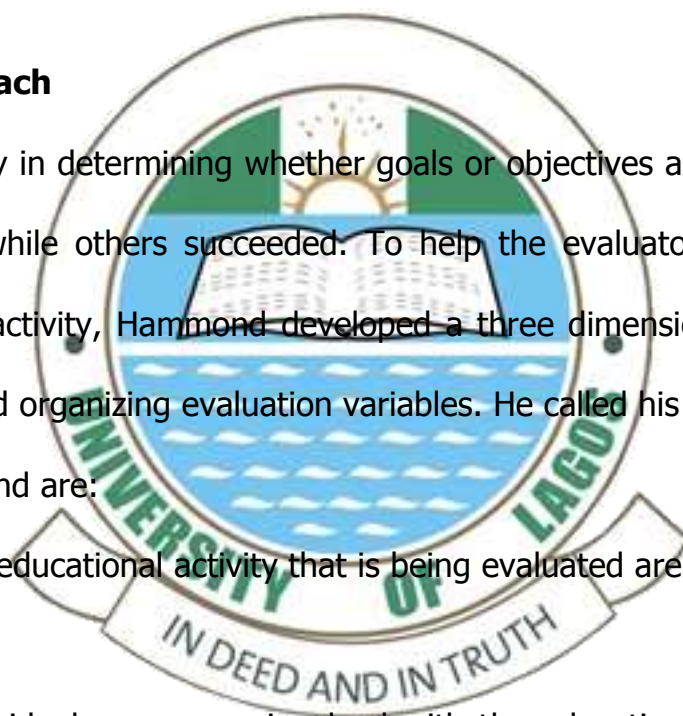
One of the primary contributions of Metfessel and Michael (1967) approach is in expanding the educational evaluator's vision of alternative instruments that might be used to collect evaluation data. In school self-evaluation, stakeholders are allowed to develop alternative instruments, validate them and use for data collection within their setting (Alkin, 1991)

(c) **Hammond's Evaluation Approach**

Hammond (1973) is interested not only in determining whether goals or objectives are achieved, but also in finding out why some educational innovations failed while others succeeded. To help the evaluator search for factors that influence the success or failure of any educational activity, Hammond developed a three dimensional cube (Hammond, 1973) for use in describing educational programmes and organizing evaluation variables. He called his cube a "structure of evaluation"

The three dimensional cube of Hammond are:

1. Instruction: Characteristics of the educational activity that is being evaluated are organization, content, method, facilities and cost.
2. Institution: Characteristics of individuals or groups involved with the educational activity being evaluated are student, teacher, administrator, educational specialist, family and community.
3. Behavioural objectives: Objectives of the educational activity being evaluated include the cognitive objectives, affective objectives, and psychomotor objectives.



Hammond's evaluation structure is a valuable heuristic which the evaluator can use in analyzing the success or failures of an educational activity in achieving its objectives (Worthen & Sanders, 1987). In the school situation, self-evaluation can be used to investigate why the products of a particular school are doing well while others are consistently performing poorly.

(d) **Provus' Discrepancy Evaluation Model (DEM)**

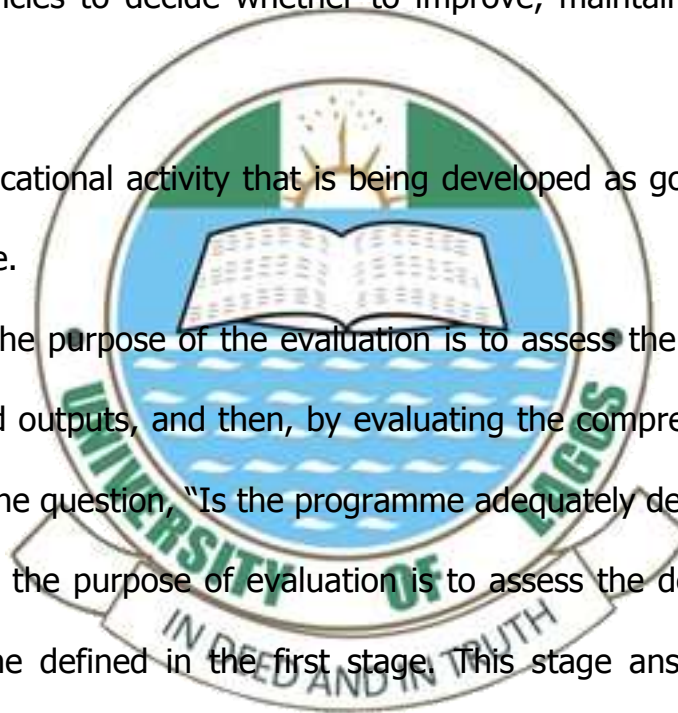
This is another approach in the Tylerian tradition developed by Malcolm Provus in 1969. It is a well tested and commonly accepted utilitarian model to use in evaluating academic programmes. He defined evaluation as the process of agreeing upon programme standards, determining whether a discrepancy exists between some aspect of the programme and standards governing that aspect of the programme, and using discrepancy information to identify weaknesses of the programme. His stated purpose of evaluation is to determine whether to improve, maintain or terminate a programme (Gredler, 1996). Gredler (1996) maintains that Provus' model is primarily a problem-solving set of procedures that seeks to identify weaknesses, according to selected standards, and to take corrective actions with termination as the option of last resort.

Provus views evaluation as continuous information management process designed to serve as "the watchdog of programme management" and the "handmaiden of administration in the management of programme development through sound decision making" (Provus 1973). According to Provus, evaluation can be seen as a process of:

1. agreeing upon standards/objectives;
2. determining whether a discrepancy exists between the performance of some aspect of a programme and the standards set for performance and
3. using information about discrepancies to decide whether to improve, maintain or terminate the programme or some aspects of it.

Provus conceived a programme or educational activity that is being developed as going through four developmental stages, to which he added a fifth optional stage.

- i. Programme Definition – where the purpose of the evaluation is to assess the programme design by first defining the necessary inputs, processes, and outputs, and then, by evaluating the comprehensiveness and internal consistency of the design. This stage answers the question, “Is the programme adequately defined?”
- ii. Programme Installation – where the purpose of evaluation is to assess the degree of programme installation against the standards of the programme defined in the first stage. This stage answers the question, “Is the programme installed as defined in stage 1?”

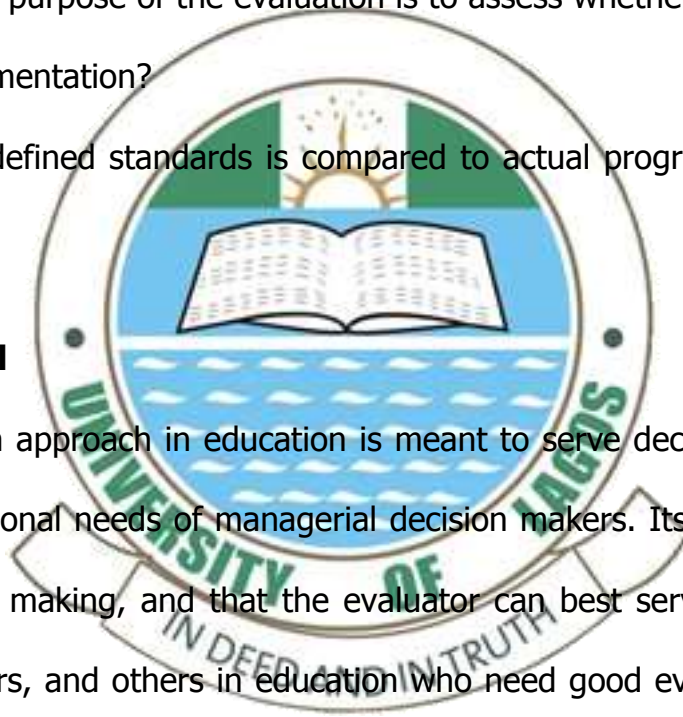


- iii. Programme Process (interim products) – where the purpose of evaluation is to assess the relationship between the variables to be changed and the process used to effect the change. This stage asks “Are the resources and techniques being used congruent with the goals of the programme?”
- iv. Programme Product – where the purpose of the evaluation is to assess whether the design of the programme achieved its major objectives in the implementation?

At each of the four stages the defined standards is compared to actual programme performance to determine if any discrepancy exists.

1.3.2 Management-Oriented Model

The management-oriented evaluation approach in education is meant to serve decision makers. The central concern is on identifying and meeting the informational needs of managerial decision makers. Its rationale is that evaluative information is an essential part of good decision making, and that the evaluator can best serve education by serving administrators, policy makers, school boards, teachers, and others in education who need good evaluative information. Developers of this method have relied on a systems approach to education in which decisions are made about inputs, processes, and outputs. This approach further clarifies who will use the evaluation results, how they will use them, and what aspects of the system

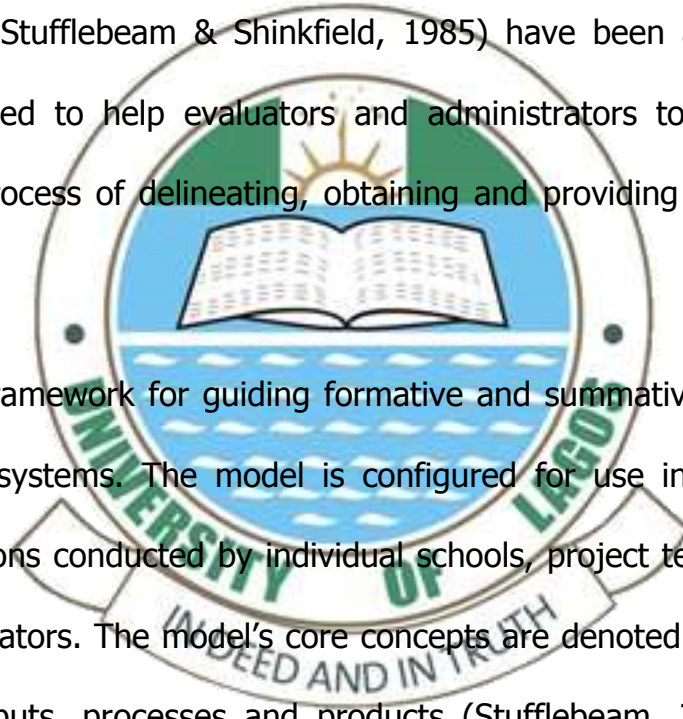


they are making decisions about (Blenkin, Edwards, & Kelly, 1992; Stufflebeam, 1983; Worthen & Sanders, 1987). The following are the application processes in classrooms/ schools.

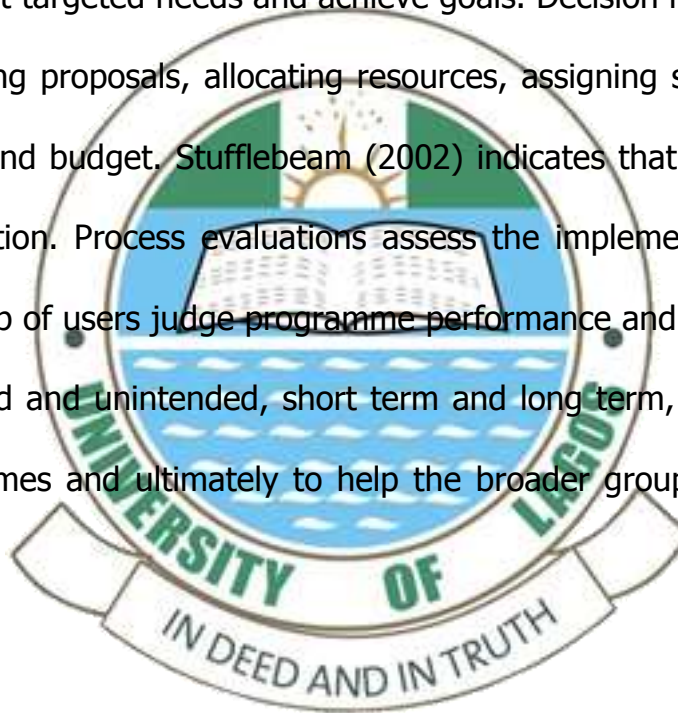
(a) The Context, Input, Process, and Product (CIPP) Evaluation Model

Stufflebeam (1969, 1971, 1983; and Stufflebeam & Shinkfield, 1985) have been an influential proponent of a decision-oriented evaluation approach structured to help evaluators and administrators to make good decisions. (Stufflebeam, 1973:129) views evaluation as “the process of delineating, obtaining and providing useful information for judging decision alternatives.”

The CIPP model is a comprehensive framework for guiding formative and summative evaluations of projects, programmes, personnel, products, institutions and systems. The model is configured for use in internal evaluations conducted by an organization’s evaluators; self-evaluations conducted by individual schools, project teams or individual service providers and contracted or mandated external evaluators. The model’s core concepts are denoted by the acronym CIPP, which stands for evaluations of an entity’s context, inputs, processes and products (Stufflebeam, 2000; Stufflebeam, 2003; Stufflebeam, Gullickson, & Wingate, 2002).



According to Stufflebeam (2003), context evaluations assess needs, problems, assets and opportunities to help decision makers define goals and priorities and help the broader group of users judge goals, priorities and outcomes. He continued that input evaluations assess alternative approaches, competing action plans, staffing plans, and budgets for their feasibility and potential cost-effectiveness to meet targeted needs and achieve goals. Decision makers use input evaluations in choosing among competing plans, writing funding proposals, allocating resources, assigning staff, scheduling work, and ultimately in helping others judge an effort's plan and budget. Stufflebeam (2002) indicates that input evaluation is the most neglected, yet critically important type of evaluation. Process evaluations assess the implementation of plans to help staff carry out activities and later help the broad group of users judge programme performance and interpret outcomes. Product evaluations identify and assess outcomes; intended and unintended, short term and long term, both to help a staff keep an enterprise focused on achieving important outcomes and ultimately to help the broader group of users gauge the effort's success in meeting targeted needs.



In the formative case – where evaluation helps guide an effort – CIPP evaluations respectively ask what needs to be done. How should it be done? Is it being done? Is it succeeding? The evaluator submits interim reports addressing these questions to keep stakeholders informed about findings, help guide decision making, and strengthen staff work. In finalizing a

summative report, the evaluator refers to the store of context, input, process and product information and obtains additionally needed information. The evaluator uses this information to address the following retrospective questions: Were important needs addressed? Was the effort guided by a defensible plan and budget? Was the service design executed competently and modified as needed? Did the effort succeed?

The CIPP model is strongly oriented to involving and serving an enterprise's stakeholders. While evaluators must control the evaluation process to assure its integrity, CIPP evaluations accord programme beneficiaries and other stakeholders more than a passive recipient role. Evaluators are charged to keep stakeholders informed and provide them appropriate opportunities to contribute. Consistent with the writings of Alkin, Daillak, and White (1979); Guba and Lincoln (1989); House and Howe (2000); Patton (2000); and Stake (1983), evaluators using CIPP model are expected to search out all relevant stakeholder groups and engage at least their representatives in communication and consensus-building processes to help affirm foundational values, define evaluation questions, clarify evaluative criteria, contribute needed information, and assess evaluation reports.

(b) The UCLA Evaluation Model

The UCLA evaluation model is parallel, close to some aspects of the CIPP model. Alkin (1991), the developer, defines evaluation as "the process of ascertaining the decision areas of concern, selecting appropriate information, and collecting and

analyzing information in order to report summary data useful to decision-makers in selecting among alternatives” (p.2). His model includes five types of evaluation, namely: systems assessment, programme planning, programme implementation, programme improvement and programme certification.

1.3.3 Consumer-Oriented Evaluation Approaches

The primary evaluation theorist behind this approach is Michael Scriven. This approach is based on the consumer product metaphor. In other words, perhaps evaluators can obtain some useful evaluation ideas from the field of consumer product evaluation. As Payne (1974) mentions, the consumer approach is primarily summative. For example, when one reads Consumer Reports, the goal is to learn if the product is good or not, how well it stacks up against similar products and whether a decision on whether to purchase it or not. In sum, the consumer evaluation looks at the merit and worth, absolute and relative, of a particular product. Payne (1974) points out that the consumer approach also holds some promise for developing lists of programmes that work, which can be used by policy makers and others when developing or selecting programmes for specific problems.

Independent agencies or individuals, who have taken responsibility to compile information on educational products, or assist others in doing so, have promoted the consumer-oriented evaluation approach. Educational products include virtually any aspect of education available in the market place: curriculum packages, workshops, instructional media, in-service training

opportunities, staff evaluation, forms or procedures, new technology, software and equipment, educational materials and supplies, and even services to schools.

The consumer-oriented approach to evaluation is predominantly a summative evaluation approach. Developers of educational products have come to realize, however, that using the checklists and criteria of the consumer advocate while the product is being created, is the best way to prepare for subsequent public scrutiny.

1.3.4 Expertise-Oriented Evaluation Approaches

The expertise-oriented evaluation approach is used to judge a programme, activity or institution. Evaluators utilizing this approach draw on a panel of experts to judge a programme and make recommendations based on their perceptions (Worthen, Sanders, & Fitzpatrick, 2004). Expert panels are widely accepted to assist in the identification of problems, formulation of ideas, development of intervention strategies, and policy making. Expert panels are used in a variety of fields such as: business, engineering, health, industry, law, education, government and politics.

The main goals are to evaluate, validate and recommend actions or issues of importance. The use of expert panels in these practices has been identified as a practical and serviceable approach to evaluation (Seskin, Gray-Still & Boroski, 2002).

1.3.5 Adversary-Oriented Evaluation Approaches



This approach utilizes a judicial process in examining a programme. Worthen et al., (2004) identified that the central focus of adversary-oriented evaluation is to obtain results through the examination of opposing views. The pros and cons of an issue are examined by two separate teams who then publicly debate to defend their positions and mutually agree on a common position.

Judicial or adversary-oriented evaluation is based on the judicial metaphor. It is assumed here that the potential for evaluation bias by a single evaluator cannot be ruled out, and, therefore, each 'side' should have a separate evaluator to make their case. For example, an evaluator can examine and present the evidence for terminating a programme and another evaluator can examine and present the evidence for continuing the programme. A 'hearing' of some sort is conducted where each evaluator makes his or her case regarding the evaluand. In a sense Worthen and Sanders, (1999) maintain that this approach sets up a system of checks and balances, by ensuring that all sides be heard, including alternative explanations for issues on evaluation. Obviously the quality of the different evaluators must be equated for fairness. The ultimate decision is made by some judge or arbiter who considers the arguments and the evidence and then renders a decision.

Stufflebeam, (2001); Scriven, (1973) as well as Worthen, Sanders and Fitzpatrick (2004) have maintained that the adversary oriented approach to evaluation has a 'built-in metaevaluation'. They explained that a metaevaluation is an evaluation of an evaluation. By showing the positive and negative aspects of a programme, considering alternative interpretations of data, and

examining the strengths and weaknesses of the evaluation report (metaevaluation), the adversary or judicial approach seems to have some potential. Conversely, it may lead to unnecessary arguing, competition, and an indictment mentality. It can also be quite expensive because of the requirement of multiple evaluators.

1.3.6 Naturalistic and participant-oriented approaches

This approach involves a naturalistic inquiry and involvement of participants or stakeholders in that which is evaluated. The approach is central in determining the values, criteria, needs, and data for evaluation (Worthen, Sanders, & Fitzpatrick 1997). In school self-evaluation, the needs of the stakeholders – students, teachers, administrators, school community – are of paramount interest.

All the educational evaluation approaches that have been presented have something to contribute to the practising school self-evaluator. The write up contains many useful conceptual, methodological, communicative and administrative guidelines to support the school self-evaluating process.

Summary of the Approaches to Evaluation

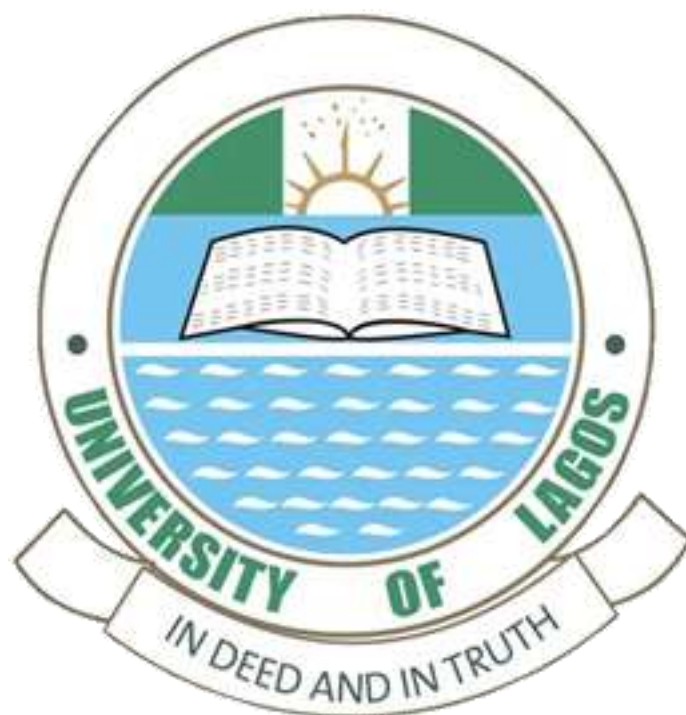


A summary of the alternative approaches to evaluation, a comparative analysis table adapted from Worthen et al's 2004 alternative approaches to evaluation by Schroeder is presented in figure 1.



Figure 1: Alternative Approaches to Evaluation, a comparative analysis

	Orientation				
	Objectives	Management	Consumer	Expertise	Participant
Purpose	Determine the extent to which objectives are achieved	Providing information for decision making	Providing information about products to aid in decision making about purchasing or adopting	Providing professional judgements about quality	Understanding and portraying the complexities of a programme; Responding to an audience's requirements for information
Characteristics	Specifying measurable objectives; using objective instruments to gather data; looking for discrepancies between objectives and performance	Evaluating all stages of programme development; serving rational decision making	Using criterion checklists to analyse products and services	Basing judgements on individual knowledge and experience; use of consensus standards, team/site visitations	Reflecting multiple realities; Use of inductive reasoning and discovery; Firsthand experience on site; Involvement of intended users
Uses	Programme development; Measuring participant outcomes; needs assessments	Programme development; Institutional management systems; Programme planning; accountability	Consumer reports; Product and service development; Selection of products and services	Self-studies; Blue-ribbon panels; Accreditation; Examination by Committee; Criticism	Ethnographies of operating programs, Examination of innovations and unexpected change
Who Defines Criteria? (Subjective/ Objective)	Evaluator; Objective	Manager(s); Subjective	Consumers; Subjective	Experts; Subjective	Participants; Subjective
Who interprets Findings? (subjective /Objective)	Evaluate; Objective	Evaluator; Objective	Evaluator; Objective	Evaluator with Experts; Subjective and Objective	Evaluator with Participants; Subjective and objective
Criteria for Judging Value of Evaluation	Measurability of Objectives; Measurement Validity and Reliability	Utility, Feasibility; Propriety; Technical soundness	Freedom from bias (objective application); Technical soundness; Defensible criteria	Qualifications of experts; Use of standards	Creditability, Fit; Auditability; Confirmability
Methods	Mostly Quantitative	Mostly Quantitative, some Qualitative	Qualitative (consumer desires) and Quantitative (quality of those features)	Mostly Qualitative, some Quantitative	Mostly Qualitative
Pros	Ease of use; Focus on Outcomes; High acceptability, Focus objectives of program	Comprehensiveness; Sensitive to information needs of management; systematic	Emphasis on needs of consumers of products or services; influences producers	Efficiency; Capitalizing on human experience and judgment Broad coverage	Emphasis on wide variety of information; Deep understanding of context and participants
Cons	Outcomes-only orientation; Oversimplification	Assumption of predictability in decision making; can be expensive;	Not generally open to debate or cross-examination	Superficial; Overuse of intuition; Reliance on qualifications of "experts"	Nondirective; Tendency to be attracted to bizarre or atypical; Labor intensive; Failure to reach closure



1.4 Theoretical Framework

The study is based on the following theories:

- i. Self-Determination Theory and
- ii. Cognitive Evaluation Theory.

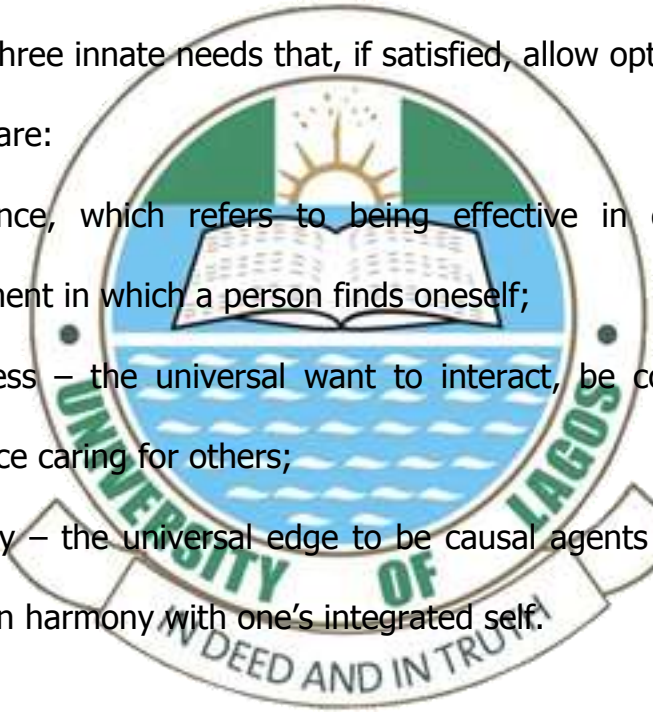
1.4.1 Self-Determination Theory (SDT)

Self-Determination theory is a theory of motivation. According to Weinstein, Deci and Ryan (2011), the theory is concerned with supporting our natural or intrinsic tendencies to behave in effective and healthy ways. This theory reflects on the belief that all individuals have the right to direct their own lives. Institutions, organizations, and peoples who have self-determination skills have a stronger chance of being successful in their entire endeavour (Wehmeyer, Agran, & Hughes 2000; Wehmeyer & Schwartz, 1997).

Self determination theory is a macro theory of human motivation and personality, concerning people's inherent growth tendencies and their innate psychological needs. It is concerned with the motivation behind the choices that people make without any external influence and interference. SDT focuses on the degree to which an individual's behaviour is self-motivated and self-determined (Deci & Ryan, 2002). Ryan (1995) maintains that SDT involves initiating an activity for its own sake because it is interesting and satisfying in itself, as opposed to doing an activity to obtain an external goal. SDT is centered on the belief that human nature shows persistent positive features, that it repeatedly shows effort, agency and commitment in their

lives that the theory calls “inherent growth tendencies.” People also have innate psychological needs that are the basis for self-motivation and personality integration. The primary focus of self-determination theory has been on the need to teach individuals specific skills about making their own decisions and how to teach these skills. A few articles provide empirically validated links between self-determination instruction and school outcomes (Algozzine, Browder, Karvonen, Test, & Wood, 2001).

SDT identifies three innate needs that, if satisfied, allow optimal function and growth. These are:

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- The logo of the University of Lagos is a circular emblem. It features a green sun rising over a blue body of water with white waves. A white banner with the motto 'IN DEED AND IN TRUTH' is draped across the bottom. The words 'UNIVERSITY OF LAGOS' are written in green around the top half of the circle.
- i. competence, which refers to being effective in dealing with the environment in which a person finds oneself;
 - ii. relatedness – the universal want to interact, be connected to, and experience caring for others;
 - iii. autonomy – the universal edge to be causal agents of one’s own life and act in harmony with one’s integrated self.

These needs are seen as universal necessities that are innate, not learned and seen in humanity across time, gender and culture. In addition; SDT proposes that the degree to which any of these three psychological needs is unsupported or thwarted within a social context will have a robust detrimental impact on wellness in that setting (Ryan & Deci, 2000; Deci & Ryan, 2002).

Deci and Vansteenkiste (2004) claim that there are three essential elements of the theory:

1. Humans are inherently proactive with their potential and mastering their inner forces, such as drives and emotions.
2. Humans have inherent tendency toward growth development and integrated functioning
3. Optimal development and actions are inherent in humans but they don't happen automatically.

People are centrally concerned with motivation – how to move themselves or others to act. Everywhere, parents, head teachers, teachers, coaches and managers struggle with how to motivate those that they mentor, and individuals struggle to find energy, mobilize effort and persist at the task of life and work. People are often moved by external factors such as reward systems, grades evaluations, or the opinions they fear others might have of them. Yet, just as frequently, people are motivated from within, by interests, curiosity, or abiding values. These intrinsic motivations are not necessarily externally rewarded or supported, but nonetheless they sustain passions, creativity, and sustained efforts. The interplay between the extrinsic forces acting on persons and the intrinsic motives and needs inherent in human nature is the territory of self determination theory. To actualize their inherent potential, they need nurturing from the social environment. This theory is related to SSE in that when the stakeholders are motivated intrinsically through trainings and exposures on SSE activities, they would develop the

sense of ownership of their school and get involved in the SSE activities. In school self-evaluation, teachers and students would be taken through the different approaches as well as the benefits to SSE so they would acquire the skills to evaluate their own schools.

1.4.2 Cognitive Evaluation Theory (CET)

Cognitive evaluation theory (CET – Deci, 1975) is a theory in Psychology that is designed to explain the effects of external consequences on internal motivation. Specifically, CET is a sub-theory of SDT that specifies factors explaining intrinsic motivation and variability with it and looks at how social and environmental factors help or hinder intrinsic motivations. It focuses on needs of competence and autonomy. Proponents of the theory claim that social context and events like feedback on work or rewards lead to feelings of competence and so enhance intrinsic motivations (Deci & Ryan, 1985). Deci (1975) found positive feedback enhanced intrinsic motivations and negative feedback diminished it. Vallerand and Reid (1984) went further and found that these effects were being mediated by perceived control.

Autonomy, however, must accompany competence in order for people to see their behaviour as self determined by intrinsic motivation. For this to happen there must be immediate contextual support for both needs and inner resources based on prior development support for both needs (Reeve, 1996). CET and intrinsic motivation are also linked to relatedness through the hypothesis that intrinsic motivation will flourish if linked with a sense of

security and relatedness. Grolnick and Ryan (1989) found lower intrinsic motivation in students, teachers or workers who believe their teachers, head teachers or supervisors are uncaring or cold and so not fulfilling their relatedness needs.

The involvement of teachers and students in evaluating the activities of their school would remove the feeling of uncaring or non-fulfilling of the relatedness needs of teachers and students as explained by this theory.

1.5 Purpose of Study

The purpose of this study was to determine the impact of school self-evaluation training on school improvement in basic schools in Ghana. Specifically the study was to:

1. determine whether there was difference in the post training scores, on school self-evaluation indicators among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group;
2. examine whether there was difference in the post training scores, on the structure of the curriculum indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group;

3. investigate if there was difference in the post training scores, on the overall quality of attainment indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group;
4. assess if there was difference in the post training scores, on the teaching and learning process indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group;
5. examine whether there was difference in the post training scores, on support for pupils' indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group;
6. determine if there was difference in the post training scores, on ethos (climate and relationship) indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group;
7. investigate if there was difference in the post training scores, on resources (accommodation and facilities) indicator among respondents exposed to the knowledge-based Educational Effective Research (EER),

School Stakeholders' Involvement in developing SSE mechanisms and the control group;

8. determine if there was difference in the post training scores, on management, leadership and quality assurance indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group.

1.6 Research Questions

1. Is there any difference in post training scores on school self-evaluation indicators among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group?
2. Is there any difference in post training scores on the structure of the curriculum indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group?
3. Is there any difference in post training scores on the overall quality of attainment indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group?
4. Is there any difference in post training scores on the teaching and learning process indicator among respondents exposed to the

knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group?

5. Is there any difference in post training scores on support for pupils' indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group?
6. Is there any difference in post training scores on ethos (climate and relationship) indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group?
7. Is there any difference in post training scores on resources (accommodation and facilities) indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group?
8. Is there any difference in post training scores on management, leadership and quality assurance indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group?

1.7 Research Hypotheses

1. There is no significant difference in post training scores on school self-evaluation indicators among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group.
2. There is no significant difference in post training scores on the structure of the curriculum indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group.
3. There is no significant difference in post training scores on the overall quality of attainment indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group.
4. There is no significant difference in post training scores on the teaching and learning process indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group.
5. There is no significant difference in post training scores on support for pupils' indicator among respondents exposed to the knowledge-based

Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group.

6. There is no significant difference in post training scores, on ethos (climate and relationship) indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group.
7. There is no significant difference in post training scores on resources (accommodation and facilities) indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group.
8. There is no significant difference in post training scores on management, leadership and quality assurance indicator among respondents exposed to the knowledge-based Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group.

1.8 Significance of Study

The study would provide information for policy makers in the Ministry of Education and other relevant agencies that orchestrate basic education in Ghana to formulate policies that can further improve the state of the existing

schools, both public and private, so that SSE will be an integral part of the evaluation mechanism of the country's educational system.

The findings of this study is expected to create an awareness for teachers, head teachers, students, School Management Committees, Parent Teacher Associations, and the District/Metropolitan Education Office staff, as well as researchers on the status of school self-evaluation in the basic schools in Ghana. It is hoped that this would improve the practice of self evaluation in the basic schools. It is expected that the findings from the study would equip Circuit Supervisors, Head Teachers and Teachers with a clear understanding of what is actually happening in the state and practice of school self-evaluation in their schools.

The results of the study is to equip basic school teachers and head teachers with the skills needed to implement self-evaluation in their schools effectively as a means of developing the sense of ownership among students, teachers, head teachers and the entire school community.

The study would also serve as an important reference source for school administrators, teachers, parents, pupils, metropolitan, sub-metro, municipal, district directorates of education and the Ghana Education Service (GES) as a whole in their bid to improve the practice of school self-evaluation in the Ghanaian basic schools, with adequate information about what is being done and what is left undone.

1.9 Scope of Study

The study was carried out in the Public Junior High schools in the Brong-Ahafo Region of Ghana. It covered four basic schools in the Sunyani Municipality. The study emphasized the effectiveness of school self-evaluation indicators on school improvement. The self-evaluation indicators considered were the structure of the curriculum, overall quality attainment, teaching and learning process, support for pupils, climate and relationships, resources and management, leadership and quality assurance.

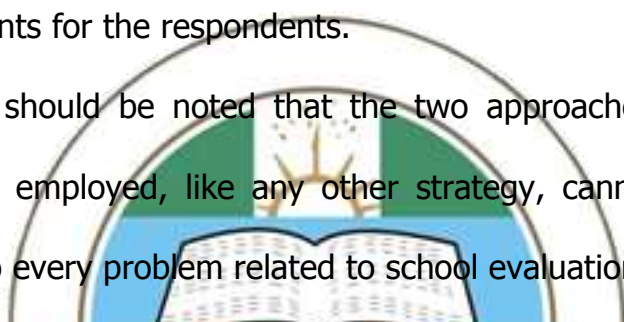
1.10 Limitations of the study

The limitations of this study include the following:-

- The study is only limited to the basic schools in the Sunyani Municipality in the Brong Ahafo Region of Ghana. The small size of the sample is the most obvious limitation of the study. This cannot support a general theory of SSE because different schools and different communities might disclose different findings
- Some of the respondents, especially the teachers, whose teaching schedules and other co-curricular activities were already very tight could hardly find time to attend to the training sessions, as well as, responding to the research instruments.
- Although, only professional teachers and JHS two students participated in the study, and are expected to be more enlightened, some of the teacher respondents misconstrued the purpose of the

study for assessing to report them to the municipal directorate while the student respondents also felt they would be reported to their teachers. They therefore felt reluctant to open up especially to indicators that they thought were sensitive.

- Since the study was conducted away from the researcher's location, and the training sessions were held outside school hours, the financial implication became enormous due to travel, accommodation and refreshments for the respondents.
- Finally, it should be noted that the two approaches to school self-evaluation employed, like any other strategy, cannot guarantee the solution to every problem related to school evaluation.



1.11 Operational Definition of Terms

Basic Education: In Ghana, Basic Education now consists of 2-3 years of Kindergarten, six years primary education followed by three years junior high school.

Circuit: Circuits are the second tier in the current decentralized educational management system in Ghana.

Circuit Supervisors: School inspectors, now designated circuit supervisors, are the officers in charge of educational standards in specific communities (circuits) only.

Climate and Relationship Indicator: This quality indicator is concerned with the sense of identity and pride in the school, reception and atmosphere, pupil and staff morale, pupil/staff relationships and pupils' behavior and discipline.

District Teacher Support Team (DTST): The District Teacher Support Team (DSTS) provide an anchor for improving the quality of teaching and learning at the district level. It provides support to schools in the area of good practices in literacy, numeracy and problem solving.



Educational Effectiveness Research (EER): Educational Effectiveness Research is that which looks at all the factors within schools in particular and the educational system in general, that might affect the learning outcomes of students in their academic and social development. It encompasses a wide range of factors such as teaching methods, the organization of schools, the curriculum and the effects of educational learning environments in general.

Institutional Self-evaluation: In the context of this study, institutional self-evaluation involves a review and evaluation of the quality and effectiveness of an institution's own academic programmes, staffing and structure, based on standards set by an outside quality assurance body, carried out by the institution itself. It is an institution evaluating its own activities, formulating its objectives and tasks, analyzing its activities applying different approaches, revealing its activity problems and foreseeing the way of resolving them.

Knowledge-base of EER: This involves taking into account the main findings of Educational Effectiveness Research that worked, when developing SSE mechanisms

Management, Leadership and Quality Assurance Indicator: This quality indicator is used to evaluate the clarity and appropriateness of aims and effectiveness of procedures for formulating policy in the school. It also concerns with the schools' development plan, action plan, and impact of planning; leadership qualities, professional competence and commitment, relationships and development of team work; effectiveness of deployment and additional responsibilities of staff.

Overall Quality of Attainment Indicator: This quality indicator is used to evaluate the overall quality of pupils' attainment, taking due consideration of the school's progress in raising attainment, pupils' progress in learning, pupils' attainment in relation to local, circuit, district, regional, and/or in national examinations and evaluations across other related quality indicators.

Quality Improvement in Primary Schools (QUIPS): The QUIPS Programme supported by USAID, among other things, helps to produce competent teachers, train education managers and planners and promote a supportive learning environment in basic schools in Ghana.

Quality Indicator: Quality Indicator provides an indication as to the quality of the progress made by a school towards implementing its educational goals.

Resources Indicator: This quality indicator is used to evaluate the provision of safe, pleasant and stimulating environment well suited to supporting the curricular activities of pupils, the work of staff, and social and leisure activities where applicable, availability of appropriate space for the size of classes, suitable work areas for teachers and adequate social provision for pupils.



School Self-evaluation: Self-evaluation is the type of internal school evaluation where the professionals responsible for the programme or core service of the organization (i.e. teachers, head teachers, pupils and parents) carry out the evaluation of their own organization i.e. the school.

School Effectiveness: School effectiveness, by this study, refers to the performance of the organizational unit called school. A school is called 'effective' when it achieves what it sets out to achieve. It is the degrees to which schools are successful in accomplishing their educational objectives or fulfilling their administrative, instructional, or service functions.

School Improvement: School improvement in this study would imply a distinct approach to educational change that enhances student outcomes as

well as strengthening the schools' capacity for managing change. It involves the general efforts to make the school better.

School Stakeholders' Involvement: This is concerned with the involvement of all groups of stakeholders (head teacher, teachers and students) in designing SSE mechanisms and action plans for school improvement purposes.

Structure of the Curriculum Indicator: It refers to the structure of the curriculum in terms of outcomes, components, aspects and subjects within curriculum areas including core skills in the basic school.

Support for Pupils' Indicator: This quality indicator is used to evaluate arrangements for planned approaches to promoting personal and social development, ensuring care, welfare, learning support, placement and protection of pupils.

Teaching and Learning Process Indicator: This quality indicator is concerned with teachers' planning, range and appropriateness of teaching approaches, teacher-pupil interaction, clarity and purposefulness of questioning, pupils' learning experiences, meeting pupils' needs, assessment as part of teaching and reporting pupils' progress.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

The chapter focuses on the previous work carried out by various researchers which are of relevance to this study.

Literature was reviewed under the following subheadings:

- Education in Ghana
- The Concept of Evaluation
- The Concept of School Self-Evaluation (SSE)
- Developing Key Indicators to Monitor Outcomes
- Role of Head Teachers and Teachers in the Process of SSE
- Factors that Hinder the Implementation of SSE
- Factors that Facilitate the Implementation of SSE
- Educational Effectiveness Theory and Research
- Educational Quality in Ghana
- Quality Improvement Initiatives in Ghana

2.1 Education in Ghana

On average, it takes about 20 years for a child to complete his/her education in Ghana. Most children in Ghana begin their education at the age of three or four. They first enter pre-school, which comprises nursery and kindergarten, which usually lasts for 2–3 years. After kindergarten, the child then continues to primary school, junior high school, senior high school and then finally university. Basic Education now consists of 2-3 years of Nursery and Kindergarten, 6 years Primary Education followed by 3 years Junior High School.

2.2 The Concept of Evaluation

Despite a plethora of scholarly articles on the subject, evaluation, there is a consensus among psychologists and educational evaluators that evaluation is the process of identifying the decisions to be made, gathering and analyzing relevant information and presenting summary data that can be used in the process of decision making (Yoloye, 2008). To evaluate means to determine the worth of or to appraise. It is the determination of the worth or value of something. According to Kyriakides & Campbell (2004), evaluation is the process of gathering information regarding the worthiness, appropriateness, goodness, validity, legality etc of something for which a reliable measurement or assessment has been made. It is the process of determining significance or worth, usually by careful appraisal and study. Inherent in the idea of evaluation is 'value' and that evaluation is assessing and judging the value of a piece of work, an organization or a service. Evaluation involves engaging in some process that is designed to provide information that will help make a judgement about a given situation.

In a similar vein, Barsaga (2002) defines evaluation as the systematic process of collecting and analyzing data in order to determine whether, and to what degree, objectives have been, or are being achieved. He maintains that to evaluate is to determine the value of something. Moreover, that something has value if it is necessary, desirable, useful or important. Barsaga (2002) continues that evaluation highlights two major points,

namely: collection and analysis of information and use of such information for decision making.

The main purpose of evaluation is to help an organization to reflect on what it is trying to achieve, assessing how far it is succeeding, and identifying required changes. Evaluation uses inquiry and judgement methods ascertaining the worth of educational activities in the schools. This involves:

- i. determining standards for judging quality and deciding whether those standards should be relative or absolute;
- ii. collecting relevant information; and
- iii. applying the standards to determine quality (Worthen & Sanders, 1987).

In summary, evaluation is at the centre of almost all education quality improvement policies and strategies in most countries today. International achievement tests, which reveal variations in students' performance across countries, are commented upon on the front pages of news papers (De Grauwe & Naidoo, 2002). For example, in Ghana, league tables of schools, based on their examination result, have become popular information for journalists, decision-makers and parents alike.

2.2.1 School Evaluation

Educational evaluation is seen as an integral part of teaching (Stenmark, 1992) and especially formative evaluation is one of the most important factors associated with effectiveness at all levels, and especially in the

classroom level (de Jong, Westerhof, & Kruiter. 2004; Kyriakides, 2005; Shepard, 1989). Educational evaluation is the process of making a value judgement about the worth of a student's product or performance (Nitko, 2001). The Rochdale School Improvement Service (2001) maintains that we can evaluate outcomes and provision. Evaluating how good the school is makes one to focus on the outcomes of the education that is being provided in a number of areas. Making judgements on the basis of the evidence available enable evaluators to pinpoint strengths, weaknesses and areas which must be improved. These areas include:

- standards of attainment
- attendance figures
- dropout figures
- pupil progress
- sporting and artistic achievements
- pupils' behaviour, attitudes, interests, values and personal development.

Evaluating the quality of different aspects of the school will also enable evaluators to determine where improvement is needed and how quickly that improvement needs to be made. The Republic of South Africa Department of Education, (2002) and other researchers such as Reynolds, Creemers, Stringfield, Teddlie, & Schaffer (2002) suggested the key areas for monitoring and evaluating to include:

- the quality of teaching throughout the school;
- the quality of leadership and management demonstrated by those with responsibilities;
- the quality of curricular provision;
- the quality of the school's relationship with parents and the local community;
- the climate for learning, the environment and ethos.

Investigating into school evaluation for quality improvement, De Grauwe & Naidoo, (2002) maintained that school evaluation is an indispensable task of the central education authorities and serves three different purposes, namely: (a) to comply with administrative demands; (b) to fulfill accountability purposes; and (c) to lead to pedagogical and managerial improvement. They also found that, in many cases, the administrative objective takes precedence over the more developmental one. At the same time, in most countries, evaluation has been of concern much more to the teachers or the students than the schools.

While it is universally recognized that evaluation in education is vitally necessary for quality improvement, the well-documented tension between the summative/accountability purposes and the formative/developmental purposes of evaluation has resulted in many negative perceptions of evaluation systems and strategies particularly among teachers.

2.2.2 School Evaluation and Development

The purpose of evaluation is to improve the school (Fidler et al 1997). Thus, evaluation can prepare the way for the development of the school's spiritual life, curriculum, staff, management and culture. Quan-Baffour (2000) contends that evaluation improves a particular school's programme in order to understand more adequately the problems of diagnosis and programme formation. Evaluation also improves teaching and learning in the classroom (Quan-Baffour, 2000).

Evaluation is also aimed at developing the skills of workers at school. Fidler et al (1997) elaborate: "All aspects of institutional evaluation demand that those involved learn new skills, and apply those that they already have in different ways." This underscores the importance of evaluation in school development.

Fidler et al (1997) contend that evaluation can inform a school's decision and may demand change. It is the evaluation feedback which can inform the school management of change. Thus evaluation is aimed at making choices and decisions. These choices and decisions assist in school development.

Evaluation develops the educator so that he/she will be in a better position to understand, motivate and assist the learners. The purpose of evaluation is not merely to determine a learner's work. However, evaluation is the basis for determining what comes next, or where we go from here. Evaluation is

also useful as a basis for remedial action or as a basis for deciding whether retention or promotion will be better for the learner (Clark & Starr 1996).

On the other hand evaluation has the potential to be a threatening exercise. Quan-Baffour (2000) comments: "This may be true because some people in authority regard an evaluation exercise as an intrusion into their programme or threat to individual autonomy." However, any school that has quality performance as its objective needs to give priority to evaluating its operations on a common basis.

Evaluation is a most important component of School Development Model. It involves making judgement about how well a school is achieving its aims and objectives (Quan-Baffour, 2000). Thus, evaluation is aimed at improving performance. Fidler et al (1997) identify two important evaluation features as follows: "... first that it should be based on shared judgements, and secondly that it should lead to action for improvement." Thus school evaluation is central to evaluation. Fidler et al (1997) rightly indicate that evaluation is central to accountability and school development. Explaining this accountability, Quan-Baffour (2000) indicated that through evaluation, stakeholders in education (i.e. educators, donors, policy makers, the government and parents) could obtain feedback from their endeavours as to whether or not their efforts have been worthwhile.

School development also enables the school to achieve better academic results. However, Creese and Earley (1999) argue that the school improvement is about more than simply getting better examination results. Thus, the crux of school improvement is school development. The argument is also true for evaluators because they want to raise standards in spite of not being involved in the actual teaching of learners.

The evaluation stage should be built into the School Development Model to enable a school to determine the worth of the developments it has implemented. Fidler et al (1997) contend that evaluation is the process by which informed decisions are made about the worth of an activity. In the light of this, better decisions can be made about the future of a particular development project. Fidler et al (1997) explain that evaluation is a means of exploring alternatives, re-educating and reforming judgements and consequently a means by which the decision making process and activities can be improved.

2.2.3 External Evaluation

External evaluation can be defined in this context as evaluation of school by an expert, or expert body, from outside the school community. It is a process that uses people external to the programme or institution to evaluate quality or standards. The most obvious form of external evaluation is inspection conducted by people from outside the school. External evaluation could include an evaluation of learner's effectiveness through

classroom inspection (Fearnside, 2000). Scriven (1991) defines an external evaluator as a person who is not involved with the project or programme to be evaluated; or when the target is a whole work community, is not a member of that community. An external evaluator can be an evaluation specialist (e.g. a consultant), an expert of the field in question (an educationalist), or an external body representing local, regional or central school administration, for instance. External evaluation may be invited by the school and targeted according to its needs, or it may be performed ex officio, as a part of school authorities' responsibilities.

There are a number of important features about the review process in external evaluation. Accordingly, Creese and Earley (1999) contend that in general, these include departmental reviews as a range of strategies directed towards school improvement, the process has clear objectives and strategies that are known to all, the review process lasts for several days, members of the School Management Team (SMT) are involved in the review, a departmental official/adviser/representative may also be involved. During the review, lessons are observed, schemes of work and sample of learners' work are studied, and a written report is prepared at the end of the review.

Honegger and Bugnard (2000) examined the strengths of external evaluation while developing working instruments for Planning Evaluation, Monitoring and Transference into Action (PEMT) and indicated that the strength of external evaluation lies in its distance and its independence. On the basis of

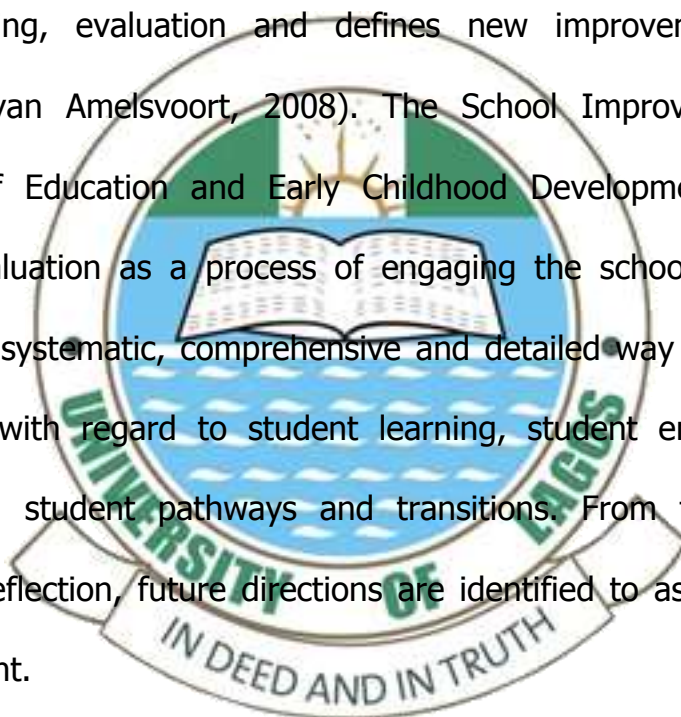
their experience, the evaluators can make comparisons and hence see things which those who are directly involved cannot or can no longer see. They also bring in new perspective and are seen to be adding objectivity into the evaluation processes. They continued that the weaknesses of an external evaluation lie in the substantial effort required in its preparation and implementation, as well as its limited time frame. Only part of the various realities can be examined within the short time available.

The relationship between the internal and external evaluation of educational institutions has long been a subject of much discussion with regard to the subject of quality assurance in education. External evaluations in the form of school inspection appear always to have enjoyed a somewhat bizarre existence. While everyone accepts the need for them, the way in which they have been carried out has always been heavily criticized (Norton Grubb, 1999; Nevo, 2001). For this reason, and also in response to recent trends with regard to decentralization and increasing autonomy of schools, evaluation methods have been developed in many countries which permit more participatory and self-directed forms of evaluation (McNamara & O'Hara, 2005; Robinson & Cousins, 2004).

2.3 The Concept of School Self-Evaluation

School self-evaluation is an important part of the process of continuous improvement and a vital aspect of the school accountability and improvement framework. Research indicates that, in most countries, an

official definition of school self-evaluation (SSE) is not available (SICI, 2003; van Amelsvoort, Bos, Janssens, Klaver, Lelyveld & Pol, 2006). Nevertheless, various informal definitions do exist and are being applied. In most definitions, SSE is referred to as a process, directly and indirectly aimed at school improvement. In some cases SSE is also regarded as a product, in respect of the results of the SSE process. SSE can also be more broadly defined as a systematic process, which includes cyclic activities such as goal-setting, planning, evaluation and defines new improvement measures (Janssens & van Amelsvoort, 2008). The School Improvement Division Department of Education and Early Childhood Development (2010) see school self-evaluation as a process of engaging the school community in reflecting in a systematic, comprehensive and detailed way on the school's achievements with regard to student learning, student engagement and wellbeing, and student pathways and transitions. From this process of analysis and reflection, future directions are identified to assist in planning for improvement.



The self-evaluating and self-improving school is the school that has the in-built resilience to meet change, as well as the internal capacity and know-how to assess its strengths and weaknesses, and build its development planning on that solid foundation (Riley & MacBeath, 2000). School self-evaluation provides an opportunity for the whole community, as well as all stakeholders in education to reflect on student outcomes and key improvement strategies, as well as focusing on what the school can do in the

future to continue to improve. Hopkins (2001) opines that simply collecting data, however, systematically and routinely, will not itself improve schools. There needs to be a commitment to scrutinize such data, make sense of it and to plan and act differently as a result. This is the focus of school self-evaluation.

School self-evaluation should be taken as a whole school process. This implies that all the relevant stakeholders – students, teachers, head teachers, district and regional education office staff, parents, communities - should be involved (Issues in School improvement, 2003). Self-evaluation is about gaining an accurate picture of what ones school does well and where it needs to improve. It is the key to school improvement. It is the process of identifying priorities for improvement through a regular cycle of monitoring and evaluation. Pang (2006) opines that school self-evaluation (SSE) is a mechanism through which schools can help themselves review the quality of education, improve continuously and develop themselves into effective schools. The three major questions usually asked in school self-evaluation are:

- (1) What is our school's present performance?
- (2) How do we know about the school's performance?
- (3) What will we do after knowing the performance?

These seem to be simple questions, but it may be a very difficult task to produce a full picture or thorough understanding of the school through systematic and objective evaluation of the school's performance.

In summary, school self-evaluation is about schools asking themselves, 'how are we doing?' It involves taking a broad view of performance in key areas such as the culture and ethos of the school, its organization and management, delivery of the curriculum, teaching and learning, pupil attainment, support for pupils and community relations, and a detailed look at specific areas in which the school is successful and at others that might be causing concern.

2.3.1 The Case for School Self-evaluation

According to the Republic of South Africa Department of Education, Directorate: Quality Assurance, (2002), the purpose of school self-evaluation is to enable the school to:

- i. reflect on its performance with regard to its aims and priorities;
- ii. measure its performance against local needs and national standards;
- iii. establish strategies for monitoring and evaluating its work;
- iv. prepare effectively for external evaluation, and ultimately school improvement.

The preface to the module used in the workshop on the “implementation of the process of school self-evaluation in Swaziland: Lessons learned” stresses accountability and improvement as the main purpose for school self-evaluation (Quist, 2003). However, House (1998) cited in MacBeath (1999) points out that educational stakeholders must be alert to political agendas both on the large international and national stage and in the micro-context of school and classroom. At an international level, political purpose for SSE is part of the process of educational decentralization that is on-going in many countries within the Southern African Development Community (SADC) region and elsewhere. It is genuinely seen as an attempt to serve local needs but it is also a reflection of the limited success achieved by central authorities in achieving sustainable improvements in teaching and learning without the support of both the schools and local stakeholders.

In most countries within sub Saharan Africa, Ghana being a case in point, inspectors, traditionally responsible for external evaluation and the maintenance of standards, are overworked and in many cases, under-trained particularly in relation to current trends in school management. Their ability to provide the impetus for school improvement is, therefore, limited. There is also some controversy over the ability to ‘wear two hats’ and function effectively in both the role of critical external evaluator and supportive advisor/facilitator. As a result, it is increasingly felt that individual schools would be more sensitive to the needs of their students and those of the local

community than the central authorities and, therefore, more suited to find ways to help them (Opoku-Asare, 2006; Quist, 2003; Carron & De Grauwe, 2001).

Patton (1991) maintains that evaluation always carries values and purposes, either explicit or implicit. Evaluation in general can be thought of as serving three purposes which SSE shares, though to different degrees. These are political, accountability and professional development.

School self evaluation has numerous benefits over traditional means of evaluation. According to Airasians and Gullickson (1997) and Shake (1996), the benefits of school self-evaluation for teachers and students include the following:

- it focuses on improvement at the classroom level where teachers have the greatest impact and expertise;
- it gives the school a voice in and the control over their own development;
- it makes the school aware of the strengths and weaknesses of their practices;
- it can take place whenever and wherever the school wishes;
- it may be more accurate than external traditional evaluations;
- it is psychologically non threatening;
- it allows the school to focus on a plan for improvement;

- it encourages continuous development and discourages static routines and methods.

Similarly, research by Davis and Rudd (2001), MacBeath (1999) and Nevo (1995) also suggests that:

- School self-evaluation can bring about a change in the culture of a school providing a forum for greater participation for all stakeholders concerned with the quality and improvement of the school;
- Self-evaluating schools can develop their own agenda, enabling staff to focus on areas for improvement of relevance to their own context. This helps to promote ownership of the process. Davies and Rudd (2001) emphasize that in the African context, the initial impetus for self-evaluation might need to be generated by the school head, or other trainers, however, it should be possible, with support and training opportunities, to encourage the school community, governing boards/ school management committees, teachers, pupils and parents to become more involved in the strategic planning of self-evaluation programmes and activities.
- Teachers' professional development can benefit from a school's commitment to self-evaluation, particularly in an institution where staff is encouraged to share expertise with colleagues and to initiate development opportunities within their own school.

- School self-evaluation can provide a mechanism with which the principal and management committees or school boards can learn about their school and initiate organizational change.
- SSE can be used to encourage community involvement. Community and business leaders can provide useful feedback, inform classroom practice and help set the agenda for change.

2.3.2 Potential Issues and Challenges to School Self-evaluation.

According to Saunders, Stradling, and Rudd (2000), inevitably, the tensions that attended the initial implementation of SSE in the UK and other countries, regarding the purpose of school self-evaluation and issues relating to accountability and quality control will affect the implementation processes in other countries that practise the concept for the first time. Davies and Rudd (2001) also posit that the lack of reliable and extensive educational data within ministries of education or experience within schools of target setting and the identification of performance indicators are other issues that will need to be addressed for successful implementation of SSE in Swaziland and other African countries.

There are also concerns relating to the level of support that will be required in order to provide staff with the capacity to undertake a systematic evaluation process and develop feasible action plans. Nevo (1995) points out, in the initial stages of implementation, school self-evaluation is usually undertaken by 'amateurs', teachers and in many cases head teachers and

principals who lack experience and training in the collection and analysis of quantitative and qualitative data.

2.3.3 Different Approaches to School Self-Evaluation

Improving the quality of education is currently a central concern to educational policy in many countries. Several countries have either created or are working on legislation and monitoring in the field of School Self-Evaluation (SSE), which stresses the schools' own responsibility for quality (Hofman, Hofman & Gray, 2010). Barber (1996) argues that the essence of a successful organization is the search for improvement and that effective self-evaluation is the key to it. Different approaches to establishing SSE mechanisms have been employed by various educational organizations as a means of achieving school effectiveness (Kyriades & Campbell 2004; Kyriades & Creemers 2008; Hofman, Hofman & Gray 2010).

The first approach to SSE is related to the assumption that the involvement of school stakeholders in defining the criteria of SSE may eventually encourage their active participation in using SSE for improvement purposes (Macbeath, 1999). Educational problems are typically complex, uncertain, multi-scale and affect multiple actors and agencies. This demands transparent decision-making that is flexible to changing circumstances, and embraces a diversity of knowledge and values. To achieve this, stakeholder participation is increasingly being sought and embedded into school-level decision-making processes, from local to international scales (Richards,

Blackstock & Carter 2004). Teacher participation in school-level decision making has been advanced for a wide variety of reasons. Most often, participation is thought to enhance communication among teachers and administrators and improve the quality of educational decision making. It has also been promoted on the basis of ethical arguments for “professionalizing” teaching and “democratizing” school work places (Murphy & Beck, 1995; Smylie, Lazarus & Brownlee-Conyers, 1996).

The second approach is concerned with the establishment of a climate in the school that supports change. This approach is not only based on findings of school improvement projects but also on the view of schools as mini political systems with diverse constituencies. The terminology micro politics of education emerged in clearly articulated form in the research literature within the past 30 years (Hoyle & Skria, 1999). Micro politics recognize divergence of interest, multiple sources of power, and the potential of conflict within the school setting. Such a lens allows for the possibility that coalitions and conflicts may occur both across and within organizations such as schools (Ball, 1987; Firestone & Fisler, 2002).

The third approach is based on the assumption that the knowledge-base of Educational Effectiveness Research (EER) should be taken into account in developing SSE mechanisms (Teddle & Reynolds, 2000; Teddle & Stringfield, 2007). A major element of this approach is the emphasis on the evidence stemming from theory and research. Thus, the value of a theory-

driven approach is stressed. For example, the need to collect multiple data about student achievement, the classroom and school processes is emphasized by making use of a theoretical framework based on the main findings of EER. A distinctive feature of EER is that it does not only refer to factors that are important for explaining variations in educational effectiveness but also attempts to explain why these factors are important by integrating different theoretical conditions to effectiveness. In this way teachers and other school stakeholders involved in improvement efforts may become aware of both the empirical support for the factors involved in their project and the way these factors operate a conceptual frame work. Through this approach, school stakeholders are also offered the opportunity to use in a flexible way this knowledge-base, adapt it to their specific needs, and develop their own strategies for school improvement (Heck & Moriyama 2010).

2.3.4 The Basic Steps in School Self-Evaluation

There are several identifiable stages in school self-evaluation, such as problem recognition, prioritizing, defining important questions, data collection, data analysis, reporting and communicating, school developing planning, team building, and feedback and evaluation. All these need to be fully implemented sequentially. Thus, this schema is useful to a leader for initiating change in the organization. It needs to be emphasized that the leader should have a good understanding of the concept of school self-

evaluation or self-renewal process. Its major steps and the sequence of events should be:

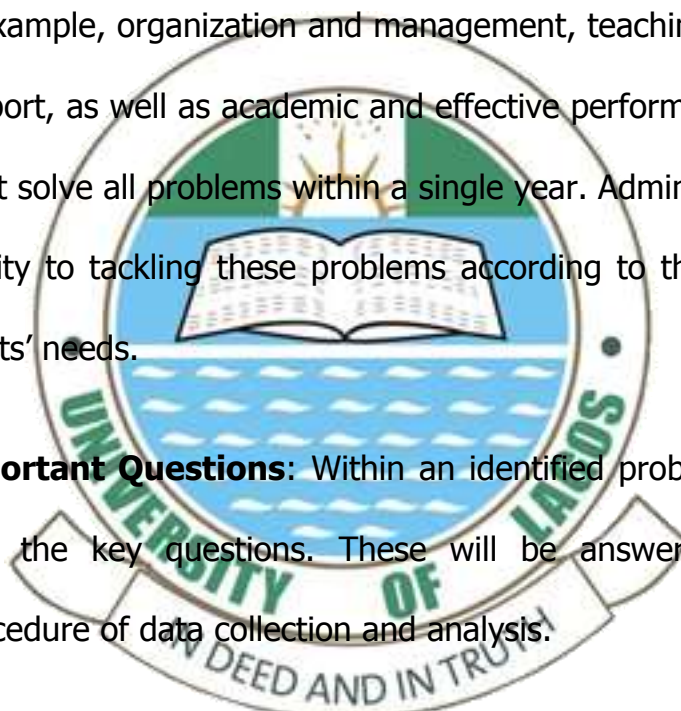
Problem Identification: Organization becomes aware of the existence of a problem that needs to be fixed. The leader either recognizes and confronts it, or ignores it.

Identifying Priority: There may be many problems in a school in different domains, for example, organization and management, teaching and learning, ethos and support, as well as academic and effective performance. However, a school cannot solve all problems within a single year. Administrators should ascribe a priority to tackling these problems according to the teachers' will and the students' needs.

Defining Important Questions: Within an identified problem, the school should specify the key questions. These will be answered following a systematic procedure of data collection and analysis.

Data Collection: Data can be collected through questionnaire, observations and/or interviews, to ascertain whether the problem still exists. Consideration should be given to the source of data since this may be significant to a genuine assessment of the school's performance.

Data Analysis: On the basis of data collected, attempts should be made to clarify, verify or re-define the problem as required.



Reporting and Communicating: Staff should be briefed on diagnostic data and involved in developing strategies to solve the problem by providing opportunities for staff training on group dynamics, communication techniques, and goal setting.

School Development Planning: An attempt should be made to fix the gap between the current situation and what should have happened. A consultant or similar expert may help in determining what steps should be taken? By whom? When? And how? Implementation should be monitored to fix any difficulties as they arise.

Team Building: Efforts should be made to build a culture of trust and confidence, improve communications, team building, skills in problem solving, and develop cooperation between and among different sub systems of the organization.

Feedback and Evaluation: Feedback should be provided to staff at the completion of a school self-evaluation cycle. The cyclical process needs to be continued to institutionalize school development as an ongoing process of innovation and change (Rudd & Davies, 2000; The Rochdale School Improvement Service, 2001; Republic of South Africa Department of Education, 2002; Scheerens, 2000; MaeBeath, Schratz, Meuret, & Lakobsen, 2000).



Schools should acquire information and qualify perceptions of administrators, teachers, parents, students and the community for reference and comparison with schools of similar background or within the same quality circle, for continuous improvement and development.

2.3.5 School Self-Evaluation and External Inspection

The issue of school evaluation is becoming more urgent and ever more complex as countries worldwide engage in restructuring their education systems in the face of economic, social and political imperatives. In the past, external inspection was seen as the main driving force in the evaluation of school and pupil performance. It was accepted that schools could only perform well or improve with some pressure, such as from external inspections (De Grauwe, 2004; Education and Manpower Bureau, 2004; Macnab, 2004). Macnab, (2004) stated that more recently, however, there have been growing calls for internal, self-evaluation, arising from the desire of schools and teachers to assess for themselves, how well they are doing. Although there is growing emphasis on the need for school self-evaluation to complement external inspections, difficulties still remain, arising from the fact that self-evaluation and school inspection could be in conflict, as they are undertaken by different staff, with different objectives in mind (De Grauwe, 2004; Education and Manpower Bureau, 2004).

In many contexts, tensions between the (external) requirement for inspection and (internal) school-based desires for self-evaluation and improvement remain. The Education and Manpower Bureau in Hong Kong, for example, which uses school self-evaluation and external school review to enhance school accountability, highlighted the successes of its model in providing a solid foundation for further improvement of learning and teaching. However, despite these successes, the bureau acknowledged that there has been considerable disquiet and concern about some elements in its School Development and Accountability (SDA) framework and the implementation processes (Education and Manpower Bureau, 2004). Nonetheless, these dual processes are beginning to be seen in many countries as invaluable complementary processes – a ‘complex couple’, one informing the other, and both informing subsequent action for the benefit of the learner, the school, and the system as a whole.

Inspection can complement good self-evaluation when used well. It provides a valuable opportunity for staff and management to:

- test and reflect on their perceptions of the school’s performance against the objective views of external evaluators;
- receive impartial feedback;
- discuss the quality of school provision and standards being achieved (Republic of South Africa Department of Education, 2002; Schon, 1991; Kyriakides, Campbell & Christofidou, 2002).

2.3.6 School self-evaluation and School Improvement Planning

School self-evaluation, inspection and performance management are interrelated and they shape the formulation and implementation of the school improvement plan. The information gathered from these activities will be used by staff and management to set targets for school improvement. Effective school improvement planning is the tool for managing effective challenge. Effective school improvement plans are:

- clear and concise;
- selective in their priorities;
- specific in what should be done by whom and by when;
- referenced to financial planning and resources;
- identify clear goals and measurable targets against which progress will be monitored.

Good plans are those that engage staff and management in a regular cycle of monitoring, evaluation and planning (OFSTED, 2005; Kyriakides, & Campbell, 2004).

According to the Rochdale School Improvement Service (2001), the school improvement plan can be thought of as being in two parts. The first part maintains existing good practice and the second part brings about the improvement of standards. The self-evaluation guidance for the Rochdale schools suggests the setting of targets - quantitative measures of standards to be achieved - for pupil, staff and school development. The targets can

be, short term or long term in time scale, set for the development of individual skills, subjects, courses or the whole curriculum. Similarly planning for SSE may be short term or long term and can be done at class, subject areas, department or school level.

In sum, carrying out SSE needs to become an integral part of good management of a school, both to ensure it provides maximum benefit and to make it manageable.

2.4 Developing Key Indicators to Monitor Outcomes

As the old adage goes, “What gets measured gets done.” Specification of exactly what is to be evaluated in order to gauge achievement of educational outcomes not only helps us track progress, it can also be a powerful motivating tool to focus efforts if it is done well and early enough in the self-evaluating process. An indicator is a specific measure or set of data that indicates progress toward a specific target. Indicators are traditionally numerical, but could take the form of a qualitative (verbal and/or visual) picture of what success would look like, and how we would know if we had achieved it (Appenteng, 2002).

An educational indicator is a quantitative or qualitative measure used to track progress toward a strategic objective. Indicators tell us specifically what to measure to determine whether educational objectives have been achieved. The tracking of educational indicators is a vital management tool for making

performance-based decisions about strategies and activities to improve teaching and learning. Educational indicators are important because they measure the progress of an educational activity against stated targets, serve as a vital management tool for making performance-based decisions about strategies and activities to improve teaching and learning. They are also used to measure behaviour or change which is hypothesized from education inputs, for example, training (United States Agency for International Development (USAID), Quality Improvement in Primary Schools (QUIPS) and the Community School Alliances (CSA) Project, 2002).

The USAID, QUIPS and CSA project (2002) reported that indicators are often referred to as being of four types: input, process, output, and outcome. Input indicators measure what is being added or provided (training, materials and funds) in the process of the teaching and learning. In the self-evaluation process, input indicators refer to the tracking of selected teaching learning activities by the school. Process indicators measure behaviour change which is hypothesized from the inputs, for example, teachers incorporating new practices like teaching methods and preparation of lesson notes in the classroom. Output indicators measure direct results of the behaviour changes, for example, students reading levels or problem solving skills. Outcome indicators measures indirect results of the behaviour change or collective results of a variety of behaviour changes, for example, improved student performance on standardized achievement tests like the Basic Education Certificate Examination (BECE).

2.4.1 Indicator Criteria

To Appenteng (2002), indicator development is a core activity in building a strong monitoring and evaluation system and drives all subsequent data collection, analysis and reporting. The political and methodological issues in creating credible and appropriate indicators are not to be underestimated. Good indicators should be clear – precise and unambiguous, relevant – appropriate to the subject at hand, economic – available at reasonable cost, adequateable to provide sufficient basis to assess performance and monitorable – amenable to independent validation. The USAID, QUIPS and CSA project Resource Handbook (2002) also indicated that indicators are not necessarily an exact measure of the objective, but rather are intended to give a reasonable idea about whether or not the objective is being achieved. The resource handbook suggested that it is necessary to have more than one indicator to measure against an objective sufficiently. The handbook suggested the following criteria to assist in determining if a proposed indicator is appropriate.

- The indicator should be direct and straightforward. The indicator should be as closely related as possible to the objective it is intended to measure. Indirect or proxy indicators should be used sparingly since they are sometimes viewed as having less validity than direct measures. They are also hard to interpret and apply by the school management team.

- The indicator should be measurable. There should be a reasonable way to assign a value to the indicator. An indicator should have an answer after it has been tracked.
- Objectivity and precision. There should be general agreement over the interpretation of the measure of the indicator. Thus, different parties should understand a particular measure to mean the same thing.
- The indicator should be uni-dimensional. An indicator should always have only one answer at any point in time.
- Reliability – Indicators should be defined in such a way that they are able to be measured in consistent way over time by different users.

2.4.2 The Seven SSE Indicators

Seven quality SSE indicators were selected from the 33 useful educational indicators in Donnelley's (2007). How good is our school?

Self-evaluation using quality indicators.

These seven indicators capture the essential features of programmes for enterprise in education. The relevant seven quality SSE indicators are:

- Structure of the Curriculum
- Overall Quality of Attainment
- Teaching and Learning Process
- Supports for Pupils
- Ethos – Climate and Relationships
- Resources (Accommodation and Facilities)
- Management, Leadership and Quality Assurance

i. Structure of the Curriculum

This quality indicator is concerned with three main themes, namely breadth and balance across elements of the curriculum, integration and permeation, and timetabling and arrangements for pupil choice. The indicator refers to the structure of the curriculum in terms of curriculum areas in the basic school. It also refers to core skills and cross curricular aspects. The indicator relates to the extent at which timetables enable the curriculum to be offered effectively, giving appropriate emphasis to each curriculum area, subjects and interdisciplinary studies.

ii. Overall Quality of Attainment

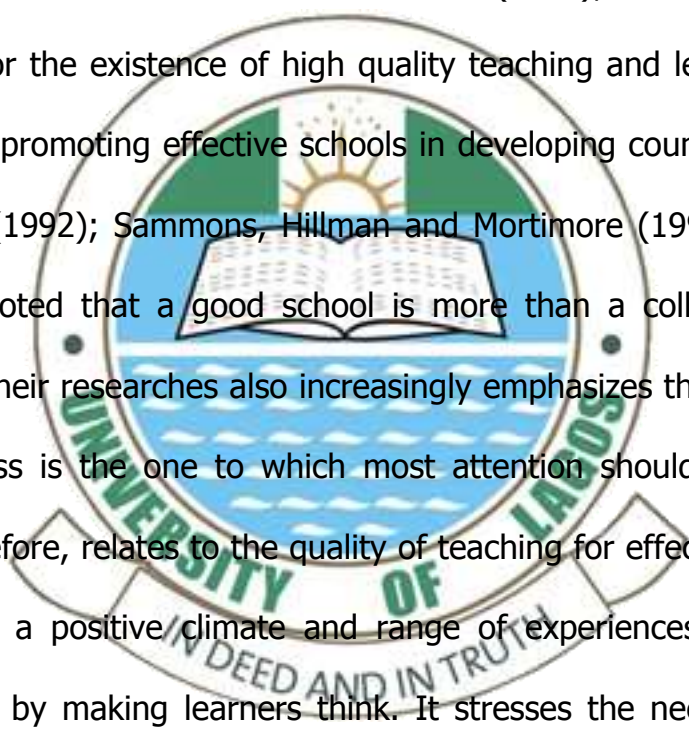
Considerable support has been given to the drive to improve standards of attainment in Ghanaian schools through the introduction of quality initiatives like the QUIPS, CSA, fCUBE and CRS among others. This quality indicator relates to the achievements of the school. It is used to evaluate the overall performance and improvement of learners' progress in becoming successful learners, confident individuals, responsible citizens and effective contributors.

The application of this quality indicator takes into account the nature of the school, the school's progress in raising attainment, pupils' progress in learning, pupils' attainment in relation to district, regional and national examinations and evaluation across other related quality indicators. Also considered under this quality indicator is the use of school attainment

summary to enable schools to evaluate their performance at end of term examinations, district organized examinations and BECE.

iii. Teaching and Learning Process.

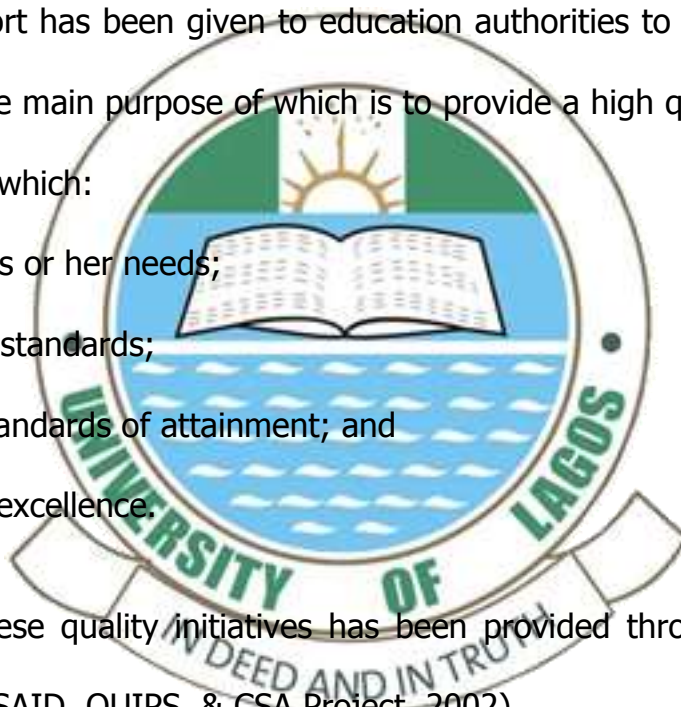
The quality of teaching and learning lies in the heart of school improvement. (Clark, 2000). Clark (2000) has found that in improving school effectiveness programme, research has shown the importance of the quality of teacher/pupil interactions. Lockheed and Levin (1993); Velez et al. (1993); have argued for the existence of high quality teaching and learning process as a means of promoting effective schools in developing countries. Reynolds and Cuttance (1992); Sammons, Hillman and Mortimore (1994); and Slavin (1995) have noted that a good school is more than a collection of good teachers, but their researches also increasingly emphasizes that the teaching learning process is the one to which most attention should be paid. This indicator, therefore, relates to the quality of teaching for effective learning in the context of a positive climate and range of experiences that promote active learning by making learners think. It stresses the need for a varied and considered range of skilful and well-paced teaching approaches where teachers and learners interact to ensure that teaching is motivating and relevant to learners' needs. It highlights the use of teacher-pupil interactions to form judgements of how teaching and tasks should be directed to meet learners' needs. The indicator recognizes the important role of information and communications technology (ICT) in enriching teaching and supporting and motivating learning.



iv. Support for Pupils

MacBeath, Boyd, Rand, and Bell, (1996) found that all pupils at some time experience difficulties with learning which require support in different ways, at different times, and at different levels of intensity, and that a school's ability to know and respond to that range of problems is a critical factor of a school's quality. Traditionally, guidance and learning support staff have carried the main responsibility for managing support for pupils. More recently, support has been given to education authorities to develop policies of inclusion, the main purpose of which is to provide a high quality education for every child which:

- meets his or her needs;
- set high standards;
- raises standards of attainment; and
- delivers excellence.



Support for these quality initiatives has been provided through the QUIPS programme (USAID, QUIPS, & CSA Project, 2002).

The quality indicator is used to evaluate the extent at which the schools operate agreed policies and procedures which support pupils and protect them from harm, abuse and neglect. It also considered teachers' alertness to the emotional, physical and social needs of individual pupils as well as their contribution to extra-curricular and other activities. Provisions for meeting the emotional, physical and social needs of individual pupils as well as

contribution of extra-curricular and other activities are also considered under this quality indicator.

v. Ethos – Climate and Relationship

Ethos is not just about climate and relationships. A good school ethos is also about creating a culture of high expectations and achievement (Clark, 2000). Heneveld (1994); Fuller and Clarke (1994), and Heneveld and Craig (1996) have all listed school climate including; high expectations of students, positive teacher attitudes, order and discipline, reward and incentives; as one of the sixteen interrelated network of factors that influence student outcomes. Through the QUIPS initiatives, schools have been encouraged to develop an ethos of achievement and to place greater emphasis on recognizing and celebrating the successes of their pupils. MacBeath & McGlynn (2003) postulates that the phrase, measuring what you value and not just valuing what you measure, reflects the focus beyond yet inclusive of, academic standards. MacBeath (2004) continues that planning for a good school 'starts with what matters'. Asking the right question is something that Southworth (2000) highlights as an important consideration for school stakeholders. Providing an insight into what the right questions are, Southworth (2000) maintains that if the self-evaluation diet is restricted to a focus on academic standards only, then how representative is it of those broader aims listed in the prospectus of schools, or encapsulated in the mission statement of schools?

Additionally, in view of the Department for Education and Skills (DFES) (2003), the profile for self-evaluation within the school should necessary reflect the school's stated ethos and culture outcomes. The quality indicator was used to evaluate the extent at which schools are capable of developing an ethos of achievement and are placing greater emphasis on recognizing and celebrating the success of their pupils. It also looks at pupil and staff expectations and use of praise, promoting an ethos of achievement in the school, ensuring and developing sense of equality and fairness as well as partnership with parents, the school board and the community.

vi. Resources (accommodation and facilities)

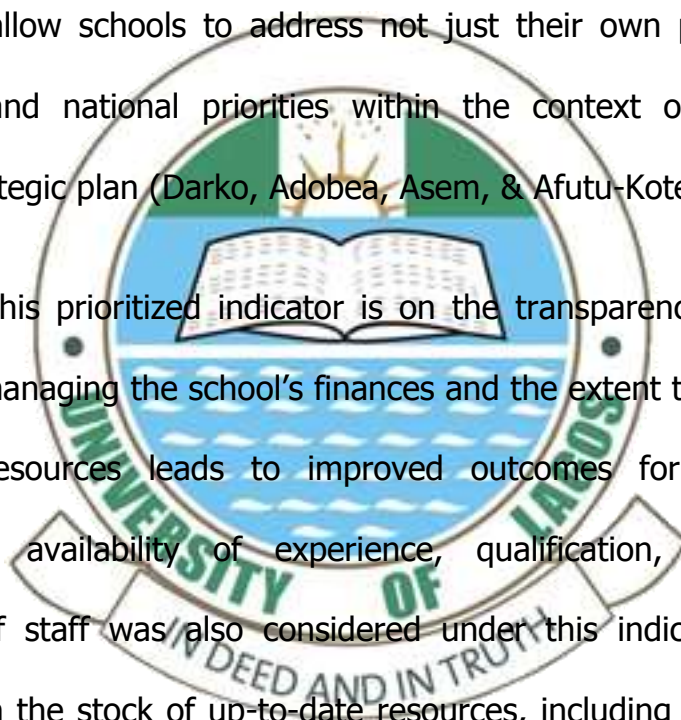


The success of a school is heavily dependent on the skills and effectiveness of its staff and the effective use of available resources (Clark, 2000). The World Bank Primary Education Policy Paper (1990) and Boissiere (2004) identified the determinants of primary education outcomes in developing countries to include hardware such as school building, classroom furniture and sanitation. Similarly, in relation to sub-Saharan contexts, White's (2004) case study in Ghana about the effects of hardware input on students' academic achievement documents some evidence of the strong and positive relationships between hardware inputs and student outcomes.

The quality indicator relates to the provision, sufficiency and accessibility of accommodation, facilities and other resources like buildings, books, practical materials, audio-visual resources by the education authorities or managing

bodies. It also relates to the impact of the provision and management of the school's finances. Presently, in Ghana, basic schools' budgets are now significantly devolved to head teachers through the 'capitation grant system'. Under this system, which has been in operation since 2005, every public kindergarten, primary school and junior secondary school receives a grant of about \$3.30 per pupil per year. This enables head teachers to plan school expenditure to match identified school development priorities. Devolved budgets also allow schools to address not just their own priorities but to deliver local and national priorities within the context of an education authority's strategic plan (Darko, Adobea, Asem, & Afutu-Kotey, 2009).

The focus of this prioritized indicator is on the transparency, fairness and best value in managing the school's finances and the extent to which the use of financial resources leads to improved outcomes for learners. The sufficiency or availability of experience, qualification, expertise and organization of staff was also considered under this indicator. It is also concerned with the stock of up-to-date resources, including books, practical materials, audio-visual resources, sufficient teaching staff, and school management of finances. It also focuses on the extent to which learners are stimulated by the accommodation and facilities and on the school's health and safety arrangements (Ankomah, Koomson, Bosu, & Oduro, 2005).



vii. Management, Leadership and Quality Assurance

To Clark (2000) there has been considerable support for systematic school self-evaluation and planning for improvement in basic schools since the inception of the QUIPS initiatives. Education authorities, at district and circuit levels, have also provided support through in-service trainings, meetings and publications of local guidelines. In addition to the published support materials, training through SMC and various management and head teacher training modules has been available.

This indicator focuses how the school works with others to create a shared vision and sense of purpose and direction which is ambitious and challenging. The indicator also focuses on the extent to which vision, values and aims guide planning for, and have an impact on, improvements in the quality of teaching and learning and outcomes for learners. This indicator again, focuses on leadership to map out future developments, linked to vision, values and aims, as well as leadership skills and knowledge, professional and personal commitment and the creation of processes which give direction.

2.5 Role of Head Teachers and Teachers, in the Process of School Self-Evaluation

As part of the recommendations made by the National Steering Committee for the consideration of other countries in sub-Saharan Africa who are engaged or would like to engage in School Self-evaluation process, Quist

(2003) wrote the following for the attention of head teachers and principals of schools.

- Be clear about the purpose and provide a rationale and direction for all stakeholders.
- Ensure that the first set of evaluation exercises are practical and achievable in a relatively short period.
- Evaluate activities that will have an immediate impact on teaching and learning and use these to inform future planning and areas for improvement. This will also help to motivate staff, parents and students.
- Think about the way to deal with possible areas of tension or conflict among staff or between staff and different stakeholders or even between the school and the local education office.
- Disseminate the benefits of SSE and encourage participation by all stakeholders as soon as possible.
- Enlist the support of a 'critical friend' - an academic, education advisor or another principal/head teacher in the educational circuit/sub district.
- Make sure that the school – head, staff and students – have sufficient time to carry out all the activities involved in the SSE without causing too much pressure on workloads of the staff.

- Ensure that termly report includes a section on school self-evaluation, outlining what the school has done in the last term and what they have found out about their strengths and weaknesses.

The role of teachers is pivotal in self-evaluation. It is of crucial importance that teachers become more active in evaluating their own work. Through their professional involvement in this area they will have opportunities to reflect on their own contributions to the work of the school. School improvement will occur when teachers are fully involved and when they have an ownership of ideas for improvement and evaluation. The head teachers are charged with drawing together all forms of self-evaluation form throughout the school. In addition the head teachers have the role of monitoring the performance of the school and this is done through the School Performance Improvement Plan (SPIP) and the targets set by the target committee and the SMC.

2.6 Factors that Hinder the Implementation of SSE

Pang (2006) and Beerens (2000) have found that generally, most principals and teachers opined that school self-evaluation was not a normal practice in schools and it was a new and innovative concept to them. They thought that since the implementation of school self-evaluation involved a paradigm shift in school management and change of practices in normal school lives for all teachers, external support including financial resources, staff development programmes and sharing of personal resources, and consultancy services

should be provided. In addition, most principals and teachers would like school self-evaluation to be implemented in phases, since they needed more time and space to acquire the necessary new knowledge and skills.

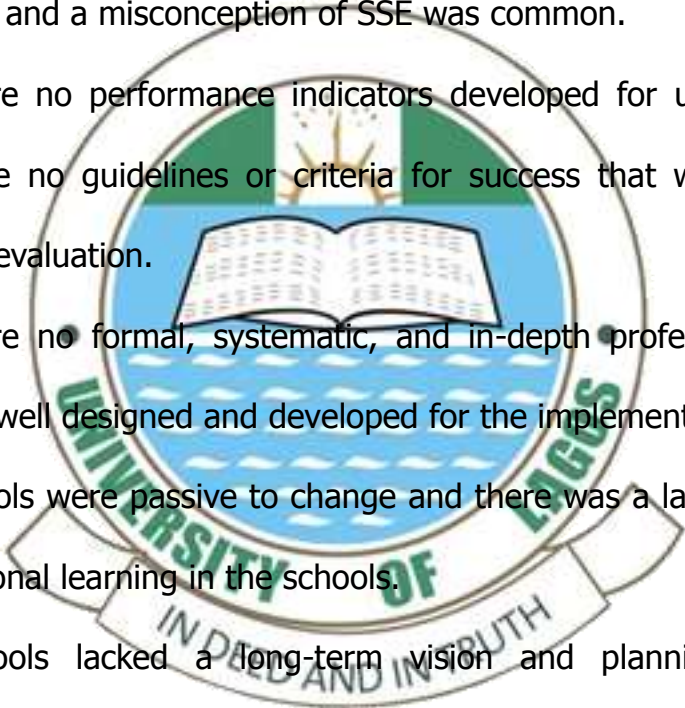
Pang (2006) identifies the following hindrances at the System Level.

1. A loosely coupled system.
2. A too ambitious plan.
3. Too many existing reforms.
4. School self-evaluation is a complex process.
5. Lack of resources.

2.6.1 Hindrances at the School Organizational Level

Implementation of school self-evaluation at the school level is not an easy task, given the present conservative cultures found in most schools. The major factors that hindered the effective implementation of school self-evaluation are summarized as follows and they are worthy of the special attention of school leaders and administrators.

1. The plurality of categories of stakeholders and the diversity of views and opinions in schools might lead to many ideal sets of reforms being opposed.
2. Past experience of failure in the implementation of educational policy encouraged schools to take passive and conservative roles in educational reforms.
3. Schools are inevitably political arenas and power struggles are common. These created resistance to educational change in the schools.

4. The school leaders and the teachers in some schools might have become embroiled in conflicts, which caused tensions, fears, and low morale among teachers.
 5. The communication breakdown between teachers and administrators found in some schools resulted in a very weak basis for professional collaboration and commitment.
 6. Most teachers and principals had no knowledge and skills in school self-evaluation and a misconception of SSE was common.
 7. There were no performance indicators developed for use in SSE and there were no guidelines or criteria for success that were commonly agreed in evaluation.
 8. There were no formal, systematic, and in-depth professional training programs well designed and developed for the implementation of SSE.
 9. Most schools were passive to change and there was a lack of culture of organizational learning in the schools.
 10. Most schools lacked a long-term vision and planning for school development and improvement.
- 
- The logo of the University of Lagos is a circular emblem. It features a central shield with a green top section containing a white sunburst, a blue middle section with a white open book, and a white bottom section with blue wavy lines. The shield is set against a background of green and blue. The words 'UNIVERSITY OF LAGOS' are written in green around the bottom half of the circle. A white banner at the bottom contains the motto 'IN DEED AND IN TRUTH' in green capital letters.

2.7 Factors that Facilitate the Implementation of SSE

Though there were many factors that hindered the effective implementation of school self-evaluation, a few schools had been successful in creating a culture of self-evaluation and organizational change. Such organizational characteristics existed in these schools before they took part in the project.

Guidance and consultancy on school development provided in the school improvement project facilitated the implementation of self-evaluation in these schools and enhanced their transformation into learning organizations (Pang, 2006; Barber, 1996). Factors that facilitated the implementation of school self-evaluation in these schools are summarized below.

1. An enhanced leadership.
2. Shared Values.
3. Focused Attention.
4. Good team spirit, high staff morale and a strong sense of professionalism.

2.8 Educational Effectiveness Theory and Research

Stringfield (1994) defines educational effectiveness research as the process of differentiating existing ideas and methods along dimensions deemed to be of value. Educational effectiveness research (EER) does not attempt to invent new ideas or programmes but to concentrate on understanding the lessons to be drawn from existing practices. In this way EER attempts to establish and test theories which explain why and how some schools and teachers are more effective than others.

Reynolds, Sammons, De Fraine, Townsend & Van Damme (2011) found that educational effectiveness research (EER) has shown rapid growth in the quantity and quality of the research answers it can produce to its core, foundational questions, which can be summarized as follows:

1. What makes a good school?
2. How do we make more schools good?

Goldstein (1995); Reynolds, 2010 and Teddlie 2010 maintain that EER looks at all the factors within schools in particular, and the educational system in general, that might affect the learning outcomes of students in their academic and social development. Thus, EER encompasses a wide range of factors such as teaching methods, the organization of schools, the curriculum and the effects of educational learning environments in general. Educational effectiveness research addresses the questions on what works in education and why.

EER investigates the effects of schools on student outcomes/achievement and found the relative importance of schools to the outcomes of individual students (Reynolds, Sammons, De Fraine, Townsend, & Van Damme 2011). However, in recent years, researchers in EER have been investigating a broad range of outcomes in education. These include non-cognitive outcomes such as student and teacher well being (Konu, Lintonen,& Autio, 2002; Van Landeghem, Van Damme, Opdenakker, De Fraine & Onghena, 2002) and achievement motivation (Van de gaer, De Fraine, Van Damme, De Munter & Onghena (2009).

2.9 Educational Quality in Ghana

Studies conducted in Ghana show that the quality of basic education is low. Despite funding by international donors and different interventions to improve the quality of basic public education, Kraft (2003) confirms that serious problems remain in the educational system of Ghana, especially the teaching of English language and mathematics as well as general supervision.

The results of the Criterion-Referenced Testing (CRT) introduced into the Ghanaian education sector with the assistance of USAID showed that Grade 6 pupils' achievement has been poor. In the 1994 sample, for example, only 3% of Grade 6 pupils scored satisfactory marks in English, and a dismal 1.5% in mathematics. Several studies (Dzameshie, 1997; Angmor, Jakalia, Dzaka and Asante 1997; Centre for Research on Improving the Quality of Primary Education in Ghana (CRIQPEG) 1996) confirm that the failure of Ghanaian pupils to learn can be attributed to the methods teachers use in the classrooms. Instruction took the traditional form of whole-class, and teacher-dominated. Kraft (2003) confirmed that didactic modes of teaching characterized by rote learning are still prevalent.

Equity is a prerequisite of quality education. According to Kraft (1995) there is a dramatic difference between the educational opportunities available to children in rural settings and those who attend school in towns, regional centers, or the national capital. Also, there is overwhelming geographical

disparity between the southern, central, and northern zones of Ghana in every aspect of schooling: infrastructure, toilets, textbooks, management and supervision, parental wealth, the training of teachers, instructional materials, etc. In 2003 Kraft found most of these issues, especially school inspection by DEO staff, still unresolved. Kraft (2003) found that circuit supervisors visit schools which are closer and easily accessible from their offices.

2.10 Quality Improvement Initiatives in Ghana

There have been a number of initiatives in Ghana aimed at ensuring quality in the country's educational provision. Ankomah, Koomson, Bosu, & Oduro, (2005) listed the following.

- The quality improvement in primary schools (QUIPS)/ Improving Learning through Partnership (ILP)
- The whole school development programme (WSD)
- District Teacher Support Team (DTST)
- Participatory Performance Monitoring (PPM)
- Supply of teaching and learning materials
- Decentralization and community participation
- District sponsorship scheme in teacher training
- Girl child education promotion initiatives
- Non-Governmental Organizations (NGOs)

2.10.1 The Quality Improvement in Primary Schools (QUIPS) / Improving Learning through Partnership (ILP) Programme

The goal of the QUIPS/ILP project, supported by the USAID, was to assist the Ministry of Education of the Government of Ghana with educational reform, particularly efforts to improve basic education. Ankomah, Koomson, Bosu, & Oduro, (2005) found that the QUIPS/ILP programme, which was initiated in 1997, worked in collaboration with the MOE, GES, District Education officials and community representatives, to increase the effectiveness of the primary education system. The programme supported the interventions at three levels, that is, school, community and district. At the school level, training was provided to teachers, head teachers, circuit supervisors and other district officials. At the community level, awareness and mobilization were supported for strengthening school management committees (SMC) and PTAs. Improving the management capacity at the district level included planning, budgeting and financial administration. This last intervention also provided grants for the district education office (USAID QUIPS/ILP, Project, 2002; Dare, 2005; Agyeman, Baku, & Gbadamosi, 2000). Ankomah, Y., Koomson, J., Bosu, R. & Oduro, G.K.T. (2005) indicated that QUIPS provided interventions to all district education offices in over 400 partnership schools in Ghana. An end-term assessment of the QUIPS/ILP programme indicated that the programme impacted positively on teaching and learning outcomes in primary schools throughout the country. However, the sustainability of the best practices in the partnership and comparison

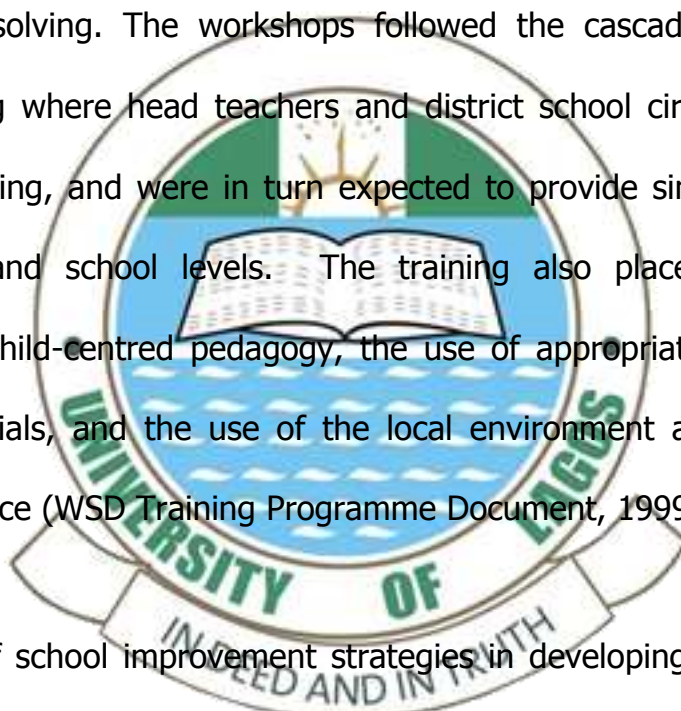
primary schools, the communities and even the district education offices was a suspect (Ghana Education Service/USAID, 2005).

2.10.2 The Whole School Development Programme (WSD)

WSD in Ghana is the Ghana Education Service (GES) intervention strategy for achieving the objectives of fCUBE. Thus, the WSD programme has been operated through the existing structures of the GES headquarters, regions and districts. At the regional and district levels, decentralization support structures made up of District Support Teams (DSTs) and Zonal coordinators were engaged to manage the intervention. The DSTs were made up of three groups of consultants in the three key fCUBE areas: quality of teaching and learning, access and participation, and management efficiency. The intervention sought to promote the following:

- 
- (a) Child-centred primary practice in literacy, numeracy and problem-solving with the view to improve the quality of teaching and learning in basic school classrooms;
 - (b) Community participation in education delivery;
 - (c) Competencies of teaching and learning through school-based in-service training;
 - (d) Participatory planning and resource management at school and district levels;
 - (e) Improve efficiency in resource management (GES WSD Report 2004).

At the heart of the WSD process in Ghana is the provision of support to head teachers and teachers to improve the quality of teaching and learning in schools. This focus is rooted in the belief that quality teaching provided by competent teachers will result in effective teachers (WSD Training Programme Document, 1999). To achieve quality schooling outcome, WSD workshops for head teachers and district support personnel focused their attention on three instructional areas for improvement - literacy, numeracy and problem solving. The workshops followed the cascade model of in-service training where head teachers and district school circuit supervisors are given training, and were in turn expected to provide similar training at local district and school levels. The training also placed considerable emphasis on child-centred pedagogy, the use of appropriate teaching and learning materials, and the use of the local environment as an important learning resource (WSD Training Programme Document, 1999).



As is typical of school improvement strategies in developing world context, WSD in Ghana also attempted to improve the partnership between head teachers, teachers and the community. Participants at WSD workshops were taught how to develop a 'Whole School Action Plan' that emphasizes this tripartite partnership arrangement in addressing teaching and learning needs in schools. Specifically, this action plan includes target setting and appraisal for the school, designing and preparing school budget for inclusion in District budgets and, a plan of action to promote community involvement in the

work of the school (WSD Training Programme Document, 1999). By promoting local ownership and community participation in schools, WSD programmes sought to sensitize the school community into action to address the problem of poor pupil learning and achievement in many primary schools especially in rural settings.

2.10.3 District Teacher Support Team (DTST)

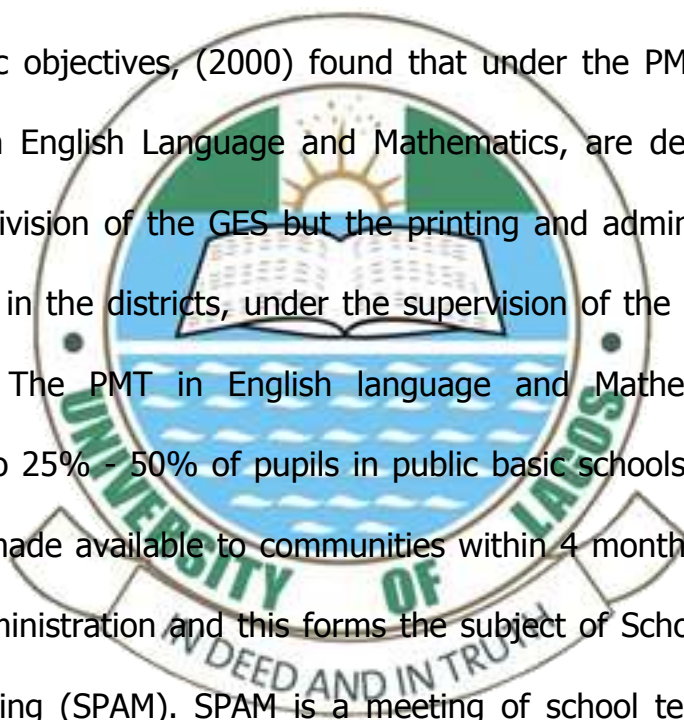
The District Teacher Support Team, which consists of head teachers and personnel from the district education office, provides an anchor for improving the quality of teaching and learning at the district level. It provides support to schools in the area of good practices in literacy, numeracy, leadership and problem solving. In many districts DSTSs have not been able to provide in-service training to teachers as funds were not available (GES WSD Report 2004).

2.10.4 Participatory Performance Monitoring (PPM)

In response to the Ministry of Education's directive that Ghana Education Service should establish and implement a Performance Management System which involves objectives setting, regular performance review and corrective action, with mechanisms for monitoring and accountability appropriate for a decentralized education system, the Ghana Education Service developed the Participatory Performance Monitoring system, (PPM). The PPM has two major components, namely, the Performance Monitoring Test (PMT) and the School Performance Appraisal Meeting (SPAM). It is expected that from the PMT and

its accompanying SPAM, accurate data on improvements in the performance of public basic schools will be obtained; teachers producing good or poor results will be identified for appropriate action; healthy competition will be generated and sustained among schools and learning achievements in English and Mathematics will improve in public primary schools (Konadu, 1998).

Konadu, (1998) and the Implementation Co-ordination Unit (ICU) of the fCUBE strategic objectives, (2000) found that under the PMT, uniform test instruments, in English Language and Mathematics, are developed by the Inspectorate Division of the GES but the printing and administration of the tests are done in the districts, under the supervision of the District Director of Education. The PMT in English language and Mathematics is then administered to 25% - 50% of pupils in public basic schools. The results of the tests are made available to communities within 4 months of completion of the test administration and this forms the subject of School Performance Appraisal Meeting (SPAM). SPAM is a meeting of school teachers, parents and the entire school community convened by the District Education Office to discuss the performance of their schools in a district/nation-wide test organized by GES, set new performance targets and design strategies for the attainment of the set targets.



The PMT and SPAM which were introduced in 1998 have proved to be effective tools in monitoring, teaching and learning outcomes in basic schools. Records suggest that the initiative has impacted positively on quality teaching and learning in schools. However, this initiative too could not stand the test of time, PMT and SPAM activities no more exist in Ghanaian schools and communities (Ankomah, Koomson, Bosu, & Oduro, 2005).

2.10.4 Supply of Teaching and Learning Materials

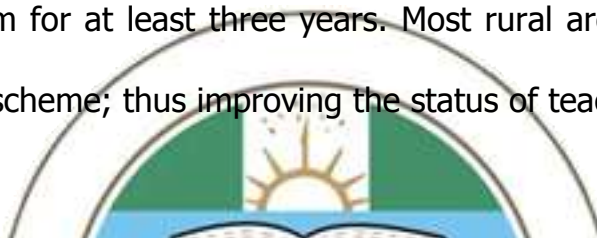
The supply of teaching and learning materials is also receiving the necessary attention. Under the Book Scheme for Basic Schools, 5 million supplementary readers and 440,000 atlases were supplied to public Junior Secondary Schools in 2005 as a result of which a total of 1,316,216 supplementary readers have been supplied to Junior Secondary Schools. Private Basic Schools and Senior Secondary Schools also have access to government procured and printed textbooks (Ministry of Education and Sports, 2005).

2.10.5 Decentralization and Community Participation

Management of schools has been decentralized with much opportunity given to communities and district assemblies to participate in managing schools. District Assemblies in Ghana have the responsibility to build, equip and maintain schools under their areas of jurisdiction. One hundred and ten District Assemblies have established District Education funds for this purpose (Agyeman, Baku, & Gbadamosi, 2000; Ankomah, Koomson, Bosu, & Oduro, 2005).

2.10.6 District Sponsorship Scheme in Teacher Training

The Scheme aims at ensuring that districts meet their full supply of trained teachers in their schools. Teachers benefiting from this sponsorship are to be posted to schools in the district after completion, particularly, to the schools in the rural/deprived areas that usually experience teacher shortages. Districts are allowed to sponsor candidates for training. On completion of their training, it is incumbent upon such beneficiaries to teach in the districts that sponsor them for at least three years. Most rural areas have benefited greatly from the scheme; thus improving the status of teacher supply to rural schools.



2.10.7 Girl–Child Education Promotion Initiative

The Ministry of Education has established a Girl Education Unit in the GES to help increase the enrolment of girls in schools. The unit was tasked to reduce the dropout rate of girls from 30% to 20% in the primary schools and in the Junior Secondary Schools (JSS) from 27% to 15%. Considerable progress has been made in this area. For example, while in 1990/91 girls' enrolment at the primary level was 45%, in 2000/2001 it was 47.2%. That of the JSS went up 45.3% in 2000/2001 from 40.8% in 1990/91.

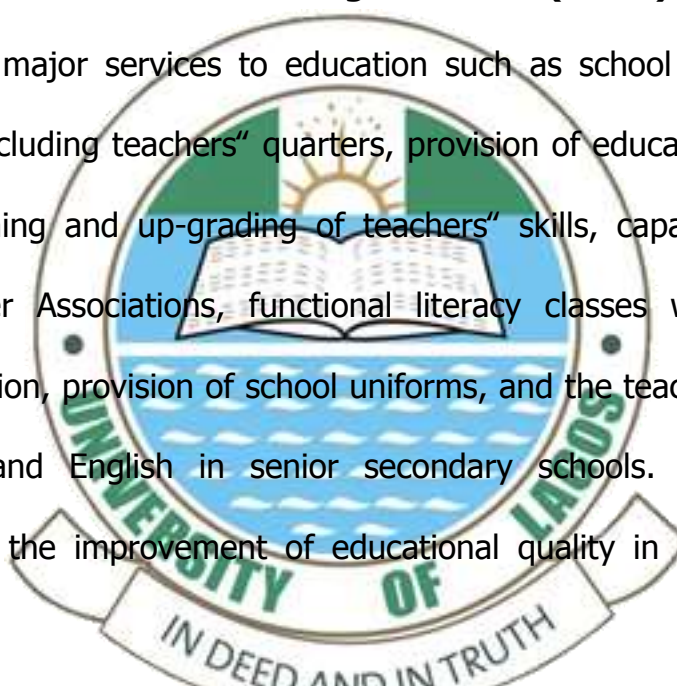


Science, technology and mathematics education (STME) clinics for girls have been instituted to promote the interest of girls, in science, technology and mathematics education and also enable them interact with women scientists and technologists. The clinics have been decentralized to the district level

and this has resulted in an increase in the number of girls pursuing science and technology rated course in the secondary schools as well as the Universities. In addition, the Girl Child Scholarship programme that began in 2001 by the Ghana Education Service continues to enjoy support from the Ghana Education Trust Fund (GETFund) (Ministry of Education and Sports, 2005; EdQual, 2005).

2.10.8 Non–Governmental Organizations (NGOs)

NGOs provide major services to education such as school renovation and construction including teachers’ quarters, provision of educational materials, in-service training and up-grading of teachers’ skills, capacity building of Parent Teacher Associations, functional literacy classes with non-formal education division, provision of school uniforms, and the teaching of science, mathematics and English in senior secondary schools. All these have contributed to the improvement of educational quality in Ghana (EdQual, 2005).



2.11 Summary of Literature Review

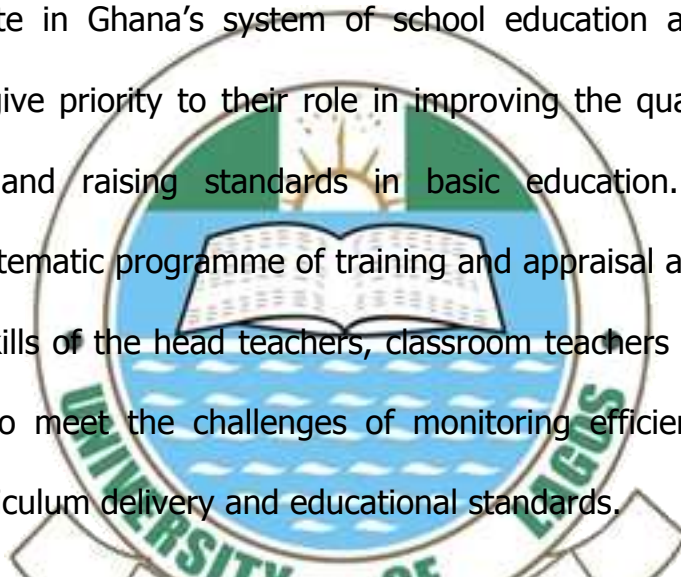
Studies on impact of school-self evaluation training on school improvement has been examined in this reviewed. It has been observed that majority of these studies confirmed the relationship between school self-evaluation and school improvement. School improvement analysts have long recognized that fundamental improvement in the quality of schools will not happen simply as

a result of the implementation a new policy, programme, organizational structure or teaching practice. The argument instead in that schools should become learning organizations in which school personnel are engaged in continuous cycle of action, analysis of progress and results and a change directed towards the attainment of shared vision of goals (Fullan, 2005; Hawley & Sykes, 2007; Copeland, 2003).

Contributions from research studies on school self-evaluation looked at the definitions, benefits, different approaches and school self-evaluation indicators. Opinions and assumptions of researchers, Schildkamp (2007), Janssens (2007), Scheerens, Glass and Thomas (2003), Nevo, (2001), and MacBeath (1999), on SSE revealed their agreement to the fact that school inspection, quality assurance, school self-evaluation and school improvement are important themes in the current educational policy-making and they have been given attention in research. However, other researchers have indicated that an official definition of SSE, school improvement and quality assurance is not available (SICI, 2003; Van Amelsvoort et al, 2006).

With regard to the literature on successful Quality Initiatives in Ghana, there is a consensus among researchers that a number of initiatives in Ghana aimed at ensuring quality in the country's educational provision have taken place (Ankomah et al, 2005; Agyeman, Baku, & Gbadamosi, 2000; Oduro & MacBeath, 2003). These studies revealed that the programmes supported

interventions at three levels, the school, community and district. Evidence from the literature indicated that Ghana school inspectors are generally selected from the District and Regional education offices, and that, in line with the government's decentralization policy on governance and decision making, management of pre-university education has been decentralized and the system for the monitoring and evaluation of Ghanaian schools devolved to the districts. This evidence presented raises questions on the efficiency of the inspectorate in Ghana's system of school education and how to get inspectors to give priority to their role in improving the quality of teaching and learning and raising standards in basic education. This situation demands a systematic programme of training and appraisal and incentives to upgrade the skills of the head teachers, classroom teachers and students to enable them to meet the challenges of monitoring efficiency in resource allocation, curriculum delivery and educational standards.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter describes the details of the research methodology adopted in the study. This involves the research design, area of study, the study population, sample, and sampling techniques that are used in the study. Also instrumentation, validation of the instruments, procedure of data collection, and administration of instruments and methods of data analysis are discussed.

3.1 Research Design

The research design used for this study was the quasi-experimental, pretest-posttest control group design. The study employed the quasi-experimental pretest-posttest control group design to explore the effects of training and the relationship that exists among the training groups and the control group. The quasi experimental design was appropriate for this study because it involved human behavior and did not permit complete randomization of subjects and control of all variables. Random assignment played no role in determining which participants got which type of training (Ilogu, 2005; Nwadinigwe, 2002; Burke & Larry, 2008). There were three experimental groups (two treatment groups and one waiting list control group). The design is illustrated below:

P_{R1}	X_a	P_{O2}
P_{R3}	X_b	P_{O4}
P_{R5}	X_c	P_{O6}

The P_{R1} , P_{R3} and P_{R5} represent the pre-test observations. Conversely, P_{O2} , P_{O4} and P_{O6} represent the post-test observations. The X_a , X_b and X_c represent the three experimental conditions, that is, the establishment of SSE mechanisms which are in line with the knowledge-base of EER, involvement of school stakeholders in defining the criteria of SSE and the control conditions. It was difficult to obtain a complete randomization and control of variance especially when human behaviour is being measured in this study. The design comprised three groups (two training groups and one control group). The first training package, the establishment of SSE mechanisms which is in line with the knowledge-base of EER as is reflected in the dynamic model, was administered to the first school while the second training package, the involvement of school stakeholders in defining the criteria of SSE, was administered to the second school. The control group served as the waiting group.

3.1.1 Dependent Variables

The dependent variable for the study was performance on the conduct of school self-evaluation.

3.1.2 Independent Variables

The school self-evaluation indicators: structure of the curriculum; overall quality of attainment; teaching and learning process; supports for pupils; ethos (climate and relationships); resources (accommodation and facilities) and management, leadership and quality assurance were the independent variables.

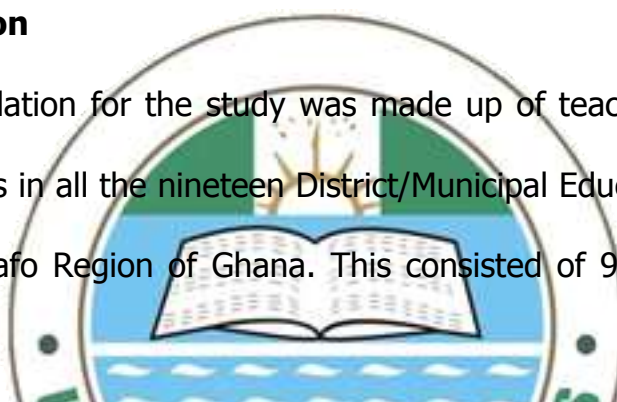
3.2 Area of Study

The study was carried out in the Sunyani Municipality in the Brong-Ahafo Region in Ghana. The rationale for the choice of Brong-Ahafo Region was that it was among the four regions which did not benefit from the final evaluation of the QUIPS interventions. The status of the region with regard to how the QUIPS programme has impacted positively on teaching and learning outcomes in basic schools in the region is, therefore, not known. The Brong-Ahafo Region has 19 administrative districts. Sunyani is a city in the West African Republic of Ghana and is the capital of both the Sunyani Municipality and Brong-Ahafo Region. The Brong-Ahafo Region, formerly a part of the Ashanti Region, was created in April 1959. It covers an area of 39,557 square kilometers and shares boundaries with the Northern Region to the north, the Ashanti and Western Regions to the south, the Volta Region to the east, the Eastern Region to the southeast and La Cote d'Ivoire to the west. According to the 2005 population estimates, 80,245 people reside in the city of Sunyani, with a growth rate of 3.4% per annum. Sunyani is home to both the Regional Government and High Court; the region's post-

secondary institutions are also based in the city; including two Polytechnic schools, the College of Renewable National Resources (which has just been upgraded to the University of Renewable Natural Resources) and the Catholic University. Several of the region's best primary, secondary and technical schools can be found within Sunyani and its suburbs. The study was limited to three educational circuits in the Sunyani municipality.

3.3 Population

The target population for the study was made up of teachers and pupils in the Basic Schools in all the nineteen District/Municipal Education Directorates in the Brong-Ahafo Region of Ghana. This consisted of 9,349 students and 656 teachers



3.4 Sample and Sampling Procedures

The participants for this study were selected from three public basic Junior High Schools in the Sunyani Municipal Education Directorate. This included 88 Junior High School (JHS) teachers and 129 JHS two students. The Junior High school level was used for this study because it is the last stage where students move to the Senior high school, hence equipping students and teachers at this level with the skills of school self-evaluation is very important. Also majority of the interventions at the basic school system take place at the primary level (Basic Stages 1-6), this study was, therefore, conducted at this level so teachers and students could acquire quality

professional practices in supervision. Students' involvement in this study was informed by the views of school self-evaluation experts on the grounds that school self-evaluation should be taken as a whole school process, which implies that all relevant stakeholders should be involved (Ofsted, 1999). Stakeholders like teachers, head teachers, the Parent Teacher Associations, School Management Committees, Community School Alliances, and the District Education Office Staff, have all been involved in school improvement activities through various school interventions like the QUIPS, fCUBE, EdQual Projects in Ghana but students only come in during teaching/learning activities and not evaluation activities. The JHS two students were used for the study because there is the likelihood that they will possess the ability to complete the questionnaire items with little or no support. They have also passed through the schools for almost two years and, therefore, could have a fair assessment of the school's evaluative system. The JHS three classes had completed their external examinations and were out of school and the JHS one students had barely spent one year in the school.

The sampling procedure that was employed for the study was the multi-stage sampling technique. The first stage was the simple random sampling technique, the lottery method, which was used to select Sunyani Municipality from the nineteen district/municipal education directorates in the Brong-Ahafo Region. The second stage was the cluster sampling technique where all the schools in the Sunyani Municipality were put into six clusters using the six educational circuits in the Sunyani Municipality. Three clusters Sunyani

'A', Sunyani 'D' and Abesim were then selected using the simple random sampling technique. The simple random sampling technique was used to select one school from each sampled circuit. The simple random sampling technique was again used to select one JHS two class in every school since all the sampled schools had more than one stream. The census survey was used in sampling all the professionally trained teachers (graduates from the Colleges of Education, University of Education, Winneba and the Faculty of Education, University of Cape Coast) in these three schools. The three head teachers and their assistants were purposively sampled for the study. All the students in the JHS two classes sampled were used for the study. The three selected schools were randomly assigned to training and control groups. The school in Sunyani 'A' was assigned to an experimental group where the knowledge-base of EER training package was administered. The school in Abesim was assigned the second experimental group where the training package in school stakeholders' involvement in defining the criteria of SSE was administered while the Sunyani 'D' school was assigned the waiting group.

3.5 Instrumentation

The following instruments were used to obtain the relevant data for the study.

1. Personal Data Questionnaire (PDQ)
2. Institutional Self-Evaluation Questionnaire (ISEQ)
3. Checklist on documents for school self-evaluation

3.5.1 Personal Data Questionnaire

A separate Personal Data Questionnaire was developed by the researcher for teachers and Junior High School students. This questionnaire was developed to elicit relevant background information about the participants. The background information that was sought from the student respondents included school, class, and gender. That for the teachers included school, gender, class or subject taught and qualification.

3.5.2 Institutional Self-Evaluation Questionnaire (ISEQ)

The Institutional Self-Evaluation Questionnaire was developed by the researcher with the help of the supervisors for the classroom teachers and Junior High School students. Most of the items on the questionnaire were adapted from Donnelley's (2007) updated edition of 'How good is our school?' The guide presents (i) standards for indicators of school self-evaluation at basic level, together with (ii) suggested procedures for scoring and (iii) a questionnaire items for institutional self-evaluation indicators. It has been indicated that any school in Africa may freely use this document in self-evaluation and self-development of its programme. The total number of items under the seven subsections of the questionnaire is 74. The respondents indicate the extent at which they self-evaluate their school using a six point scale ranging from a lowest level of performance, unsatisfactory, through weak, adequate, good, very good to the highest level of

performance, excellent. The psychometric information provided for the various subscales under the questionnaire are:

range of internal consistency: 0.60 - 0.90 and test-retest reliability: 0.50 – 0.80

Excerpt of the items in the institutional self-evaluation instrument is provided below:

Instructions: The following statements show how the school evaluates itself under various themes/quality indicators. Indicate the extent to which your school meets/evaluates the identified themes against the six levels of performance which are an integral part of each quality indicator. Your responses will be treated confidentially, anonymously and used for research purposes only.

Level	Rating	Interpretation
Level 6	<i>excellent</i>	- excellent
Level 5	<i>very good</i>	- major strengths
Level 4	<i>good</i>	- important strengths with areas for improvement
Level 3	<i>adequate</i>	- strengths just outweigh weakness
Level 2	<i>weak</i>	- important weakness
Level 1	<i>unsatisfactory</i>	- major weakness

No.	Theme(s) under which indicator is defined	6	5	4	3	2	1
	My school evaluates:						
	CURRICULUM						
1	Balance across elements of the curriculum						
2	Effective integration of skills of the curriculum						
3	Timetabling arrangement for pupil choice						
4	The extent at which courses or programmes have breadth among the various elements/content areas						
5	The extent at which the various elements of the courses or programmes are planned to meet the range of needs, of pupils.						
6	Support and guidance for teachers						

	ATTAINMENT						
7	The school's progress in raising attainment						
8	Pupils' progress in learning						
9	Pupils attainment in relation to national examinations						
10	Evaluations across other related quality indicators						

3.5.3 Checklist on Documents for School Self-Evaluation

A checklist was designed by the researcher to elicit information from the head teachers for in-depth information on issues on self-evaluation in the schools. The checklist, which elicited information on the basic functionality of the school from the head teachers, touched on the following areas:

- The school's policies and procedures for self-evaluation
- Teachers' signature book
- Attendance records
- Staff job descriptions
- School self-evaluation form
- The school's quarterly and annual report on self-evaluation.
- Scheme of work
- Lesson notes
- Lesson observation form

3.6 Validity and Reliability of Instruments

To establish the content validity of the instruments, some experts in educational evaluation of the Departments of Educational Foundations at the Universities of Lagos and Cape Coast, respectively were requested to review the items. They also scrutinized unclear, biased and deficient items and

evaluated whether the items fit into sections and sub-sections they have been placed. Their inputs were incorporated into the instruments which were finally submitted to the researcher's supervisors for the final scrutiny. The inputs of these experts helped establish the face and content validity of the instruments for the study.

A pilot study was carried out in two basic schools in the Cape Coast Municipality and Accra Metropolis to determine the Psychometric properties of the instruments and observe the reactions of the participants. A test – retest reliability of the instrument on institutional self evaluation was carried out after four weeks to determine both the stability of the scores over time and the internal consistency reliability of the responses. A sample of 173 respondents, comprising 99 Junior High school (JHS) two students and 74 JHS teachers, from two JHS in Cape Coast Municipal and Accra Metropolitan areas were used for the pilot study. The census survey was used in sampling all the professionally trained teachers ((graduates from the Colleges of Education, University of Education, Winneba and the Faculty of Education University of Cape Coast)) in these two schools. All the JHS two classes in the two schools were involved in the study.

The test retest reliability coefficient for the subscales and the total items on the instrument were determined using the Pearson's Product Moment Correlation Coefficient. The Cronbach's Coefficient Alpha was also used to determine the internal consistency reliability of the instrument. These are presented in Tables 1 and 2.

Table 1: Test Retest Reliability Coefficients for the Subscales and Total Items on the Instruments

Variable	Item No.	Test Position	Mean	Std Dev	r_{tt}
Curriculum	8	1 st Test	38.53	5.63	0.58
		2 nd Test	39.01	5.65	
Attainment	4	1 st Test	20.32	2.93	0.53
		2 nd Test	20.32	2.90	
Teach & Learn	17	1 st Test	84.60	10.78	0.63
		2 nd Test	84.27	11.07	
Support	20	1 st Test	92.01	14.64	0.67
		2 nd Test	95.47	14.40	
Ethos	13	1 st Test	62.37	9.78	0.52
		2 nd Test	62.64	10.78	
Resources	18	1 st Test	84.72	13.34	0.64
		2 nd Test	84.45	13.08	
Management	10	1 st Test	49.25	7.75	0.62
		2 nd Test	48.71	8.15	
Total	90	1 st Test	431.55	53.52	0.73
		2 nd Test	434.50	56.43	

The data in Table 1 shows that the test retest reliability coefficient for the total instrument was 0.73. The test retest reliability coefficient for the subscales/indicators ranges from 0.67 to 0.52.

The Cronbach's Coefficient Alpha, a measure of the internal consistency reliability for the total instrument for the two administrations, is presented in Tables 2.

Table 2: Internal Consistency Reliability for Pre-Test and Post-Test

Occasion	Cronbach Alpha r_{tt}	No of Items
Pretest	0.82	90
Post Test	0.78	90

N = 173

The data in Table 2 shows that the internal consistency reliability of the total instrument for the pretest and post test was 0.82 and 0.78, respectively. The test retest and the internal consistency reliability coefficients obtained for the instrument at the pilot study falls within the range of internal consistency (0.60 - 0.90) and test-retest reliability (0.50 – 0.80) for the instrument originally developed by Donnelley (2007). It can, therefore, be concluded that the pilot study reliability coefficients are reasonably high and adequate for use in this study.

3.7 Data Collection Procedure

An introductory letter was obtained from the Department of Educational Foundations, University of Lagos, Akoka. With this letter, visits were made to the Regional and Municipal Directorates of the Ghana Education Service in Sunyani to seek permission for the research to be carried out in the selected Basic Schools. In all these places, an explanation of the objectives of the study and the wider implication the findings will have for all stakeholders in the educational enterprise as a whole were outlined. The researcher administered the instruments to 244 respondents and retrieved 217, which

represents 88.9% return rate. At every school the researcher established rapport with the respondents, explained the purpose of the research and assured them of the confidentiality of their responses.

3.7.1 Recruitment and Training of Research Assistants

The researcher recruited two field assistants from the school of Graduate Studies, University of Cape Coast, Cape Coast. The research assistants were trained in the purpose and nature of the study, modalities of administering and scoring the questionnaire, procedures for completing the checklist and a practice session. The training lasted for two days; two hours for each day.

3.8 Training Package

This study was carried out in three phases.

Phase 1: Pre-training Assessment

The pre-training assessment instruments namely, the personal Data Questionnaire, Institutional Self-Evaluation Questionnaire and the Checklist on Documents for School Self-Evaluation were administered to participants in all the sampled schools (experimental and control groups) to obtain a baseline data for the study, after which the training package was administered to the experimental group. The pretest, which lasted for one week, was carried out two weeks before the commencement of the experimental treatment.

Phase 2: Training Package

Different types of support were provided in the two schools sampled from Sunyani 'A' and Abesim to establish school self-evaluation (SSE) mechanisms for improvement purposes whereas no SSE mechanism was established in the school in Sunyani 'D'. The training in Sunyani 'A' school involved the establishment of SSE mechanisms which are in line with the knowledge-base of Educational Effectiveness Research (EER). The school at Abesim was exposed to the involvement of school stakeholders in defining the criteria of SSE. Participants in the two training groups were exposed to two hours of facilitations on self-evaluation mechanisms once a week for six consecutive weeks. Teachers and students participants in the schools where the training took place were met at different times during the training sessions; however, they received the same subject matter content.

The control group, which served as a training expectancy group, received no training; however, they were exposed to teaching lessons on establishment of SSE mechanisms which are in line with the knowledge-base of EER two weeks after trainings were concluded for two weeks.

Phase 3: Post Training Assessment

At the end of the treatment the researcher re-administered the Institutional self-evaluation Questionnaire and Checklist on Documents for School Self-Evaluation to all the respondents in the experimental and control groups. This was done to ascertain the effects of the treatments on the participants.

Training Package I: Establishment of SSE Mechanisms which are in Line with the Knowledge-base of EER

The objective of the treatment was to help participants acquire the skills in taking into account the knowledge-base of Educational Effectiveness Research (EER) when developing SSE mechanisms. A major element of this approach is the emphasis on the evidence stemming from theory and research. Thus, the value of a theory-driven approach to developing SSE mechanism was stressed. This treatment helped the participants who were evaluating their schools without any performance standards to establish SSE mechanisms which are in line with knowledge-base of Educational Effectiveness Research (EER) as reflected in standards that are tested and proven with empirical evidence. This treatment also addressed the question of what works in education and why. Attempts were made to identify factors at different levels – student, teacher, school, and system – associated with school improvement.

The training package was administered to both students and teachers in the school sampled from Sunyani 'A' circuit. Both teachers and students were taken through the same content area and sessions but at different times and venues. Teachers were met at the school's staff common room while students were met in the JHS 2A classroom. Each training session lasted for two hours.

Session I: Introduction and Establishing Rapport

The researcher established rapport with the participants through self-introduction of facilitator and participants. Choosing monitors, deciding on dates and times of meeting, establishing group norms, explaining of the rationale, procedure, what to expect from the sessions and assuring confidentiality then followed. There were discussions on how the schools evaluate their activities, what they evaluate, who evaluates, which areas schools would like to evaluate, benefits and problems in self-evaluation.

A discussion session was also held on the purpose of school self-evaluation, aims and objectives, practical approaches to self-evaluation, self-evaluation in basic schools, the role of the various stakeholders in school self-evaluation, factors that hinder the implementation of SSE and the factors that facilitate the implementation of SSE. At the end of the first training session, participants were given reading materials.

Session II: Knowledge-base of Educational Effectiveness Research (EER) and the Dynamic Model of EER

The session started with a review of the previous sessions' activities. The mode of presentation for this session was the discussion method and the focus was the explanation of the concepts of EER and dynamic model of EER. There were presentations on definition of EER, the main research question of EER, that is, 'which SSE indicators (curriculum, overall quality of

attainment, teaching and learning, supports for pupils, climate and relationships, resources and leadership, management and quality assurance etc) at the school level can directly or indirectly explain the differences in improvement of schools? It was also explained to participants that EER does not attempt to invent new ideas or programmes but to concentrate on understanding the lessons to be drawn from existing practices. The assumptions on which the dynamic models are based were discussed. These included taking into account the new goals of education and their implication for teaching and learning.

Session III: Establishment and Use of the Dynamic Model of EER in Establishing SSE Mechanisms

The session started with a presentation on the need to develop models to help in SSE. The reasons offered include the following; it serves to explain previous data on SSE exhaustively. It generates a guide to SSE to prevent new entrants from reinventing the wheel by repeating past mistakes of the school, it also maps a series of avenues to future research on SSE which may help expand the knowledge-base of EER, and finally it provides a useful road map for stakeholders in the school for successful uptake of effective SSE mechanisms using knowledge-base EER by practitioners in school. Participants were also taken through the establishment of models. The dynamic model of educational effectiveness (Creemers & Kyriakides, 2008) was used as a framework for establishing SSE mechanisms for this group

since it was developed to establish links between EER and improvement of practice. The main reason for using the dynamic model was that it does not only refer to SSE indicators that are important for explaining variation in educational effectiveness but also attempts to explain why these factors are important by integrating different theoretical orientations to effectiveness. The main characteristics of the dynamic model used were also discussed. This included the four levels of the model namely; national/regional policy for education, school policy, quality SSE indicators, and outcomes; the interactions between the components of the model, school level factors and the context level factors.

Session IV: Taking and Keeping School Self-Evaluation Records.

During this session, the researcher explained to the participants how they would participate in taking and keeping school self-evaluation records. Copies of documents and records that must be in the school for effective self-evaluation including; school self-evaluation form and pre-evaluation commentary, documents for scrutiny during pre-evaluation, lesson observation form, and evaluation report form were displayed in the classroom. Also, the schools' policies and procedures for self-evaluation, teachers' signature book, attendance records, staff job descriptions, school self-evaluation form, the school's quarterly and annual report on self-evaluation, scheme of work, lesson notes and lesson observation form were discussed and copies shown to participants. A slide on this training package

was obtained from the Educational Assessment and Research Centre (EARC) an NGO based in Accra which implements USAID educational interventions.

Session V: Presentation on Performance Ratings.

Respondents were told that in education, an evaluation can be arrived at within a range of contexts. With regard to the performance ratings, the school's overall performance will be rated using the following scale:

LEVEL	Rating	Interpretation
6	Excellent	Outstanding or sector leading
5	Very good	Major strengths
4	Good	Important strengths with areas for improvement/ acceptable
3	Adequate	Strengths just outweigh weaknesses
2	Weak	Important weakness / needs improvement
1	Unsatisfactory	Major weaknesses / needs urgent support

Where it is not possible to give a rating, for example non responding skipping or omission, zero (0) will be used.

The session marked the end of the treatment package. There was sharing of experiences and lessons learned. Participants were asked to complete an assessment form on the best practices they have learned, areas of improvement and 'next steps'.

Training Package II: Involvement of School Stakeholders' in

Defining the Criteria of SSE

Participation in decision making in the school is increasingly being regarded as a democratic right and this right is increasingly being used by students' unions and teachers' associations. The justification of this treatment package is based on the belief that for School Self-evaluation (SSE) to be successfully implemented, the implementers must accept the philosophy of self-evaluation (Quist, 2003). They must clearly understand the concept and integrate it into policy and the planning of the school. The purposes include assisting the respondents in taking a broad view of their performance in key areas such as the culture and ethos of the school, its organization and management, delivery of curriculum, teaching and learning, pupil attainment, support for pupils and community relations and a much closer, more detailed look at specific areas in which the school is successful and at others that might be causing concern. The module used for the treatment stressed accountability and improvement as the main purpose for school self-evaluation. The context of accountability relates not only to the concern of the Ministry of Education to show that the money invested in education is being spent wisely, but also, in the micro context, schools are now increasingly held accountable for the delivery of quality education for all pupils. In this respect, respondents were taught to involve themselves in a continuous assessment of their achievement particularly in their

management of teaching and learning, the professional development of teaching and non-teaching staff and organizational development.

Session I: Introduction and Establishing Rapport

The researcher established relationship through self-introduction of resource person and participants. This was followed by choosing monitors, deciding on dates and times of meeting, establishing group norms, explaining of the rationale, procedure, what to expect from the sessions and assuring confidentiality. There were discussions on how the schools evaluate their activities, what they evaluate and who evaluates.

A discussion session was held on the purpose of school self-evaluation, aims and objectives, practical approaches to self-evaluation, self-evaluation in basic schools, the role of the various stakeholders in school self-evaluation, factors that hinder the implementation of SSE and the factors that facilitate the implementation of SSE. At the end of the treatment session, participants were given reading materials.

Session II: Developing SSE Indicators to Monitor Outcomes

There are different evaluative contexts in which educational indicators can be used (Scheerens, 2000). The focus of this session was to assist the schools to identify areas for self-evaluation.

There were presentations on, what are educational indicators, why are they important, types of indicators, the procedures to be followed in identifying indicators, as well as the focus areas to be evaluated.

Session III: The Evaluation Process

The mode of presentation was the discussion method. This phase adopted the Whole School Evaluation (WSE) process (Republic of South Africa Department of Education, 2002) which includes:

- Preparation for self-evaluation surveys: This is the stage where the evaluation teams for the schools prepare for WSE. The stage begins with the appointment of evaluation teams by the schools to oversee the implementation of WSE. The activities involved agree with the school on dates for evaluation visit, arrangements for post-evaluation feedback to appropriate personnel, and completing an analysis of the school's documentation in preparation of the formal on-site visit evaluation.
- Whole School Evaluation: Participants were briefed on what they were supposed to do during whole school evaluation. These included carrying out an audit of the areas of evaluation, grading what they regard as an honest assessment of their current state in each of the areas for evaluation as well as providing a brief outline of the evidence that can be produced to support the grading/rating

- On-site evaluation: The main techniques that supervisors and/or WSE teams used for collecting evidence about the school's work were discussed. These were scrutiny of other relevant school documentation – development plans, appraisal systems, Performance Monitoring Test (PMT) / Criterion-referenced test (CRT) results, observation of the school's work especially lesson notes and lesson observation.
- Post-evaluation reporting: This focused on a discussion of WSE report which is presented orally and in writing to the head teacher of the school. Details of the report discussed included recommendations on how the school might improve its practice. How the WSE team provide feedback to individual teachers on the quality of their work
- Post-evaluation support: The main focus at this stage is recommendations on the 'next steps' i.e. a summary of recommendations that inform the school development plan and improvement strategies. The key elements are:
 - i. WSE reports and improvement plans that lead to district, municipal and national improvement plans as well as addressing areas needing improvement within specific time frame.
 - ii. Observations and recommendations regarding developmental appraisal strategies that inform professional growth plans and report.

Session IV: Stakeholders' Monitored Self-Evaluation Technique

The treatment employed both self and peer assessment approaches of school self-evaluation. The objective of the treatment was to train the respondents on the development and use of instruments - questionnaire, interview schedules, checklists and observation schedules. Participants were taken through how to develop and use school self-evaluation instruments like school self-evaluation form and pre-evaluation commentary, documents for scrutiny during pre-evaluation, lesson observation form, and evaluation report form. A slide on this treatment package was obtained from the Educational Assessment and Research Centre (EARC) an NGO based in Accra which implements USAID educational interventions.

Session V: Taking and Keeping School Self-Evaluation Records

During this session, the researcher explained to the participants how they would participate in the taking and keeping of school self-evaluation records. Copies of documents and records that must be in the school for effective self-evaluation including those participants prepared in the previous session were displayed in the classroom. These include: the school's policies and procedures for self-evaluation, teachers' signature book, attendance records, staff job descriptions, school self-evaluation form, the school's quarterly and annual report on self-evaluation, scheme of work, lesson notes and lesson observation form. A slide on this treatment package was obtained from the

Educational Assessment and Research Centre (EARC) an NGO based in Accra which implements USAID educational interventions.

Session VI: Presentation on Performance Ratings.

Respondents were told that in education, an evaluation can be arrived at in a range of contexts. With regard to the performance ratings, the school's overall performance will be rated using the following scale:

LEVEL	Rating	Interpretation
6	Excellent	Outstanding or sector leading
5	Very good	Major strengths
4	Good	Important strengths with areas for improvement / acceptable
3	Adequate	Strengths just outweigh weaknesses
2	Weak	Important weakness / needs improvement
1	Unsatisfactory	Major weaknesses / needs urgent support

Where it is not possible to give a rating, for example non responding, skipping or omission, zero (0) will be used.

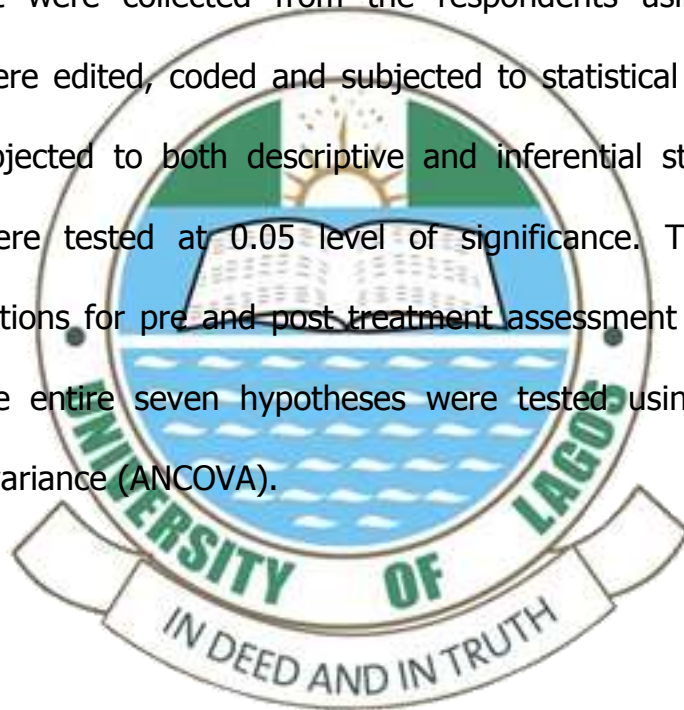
The session marked the end of the treatment package. There was sharing of experiences and lessons learned. Participants were asked to complete an assessment form on the best practices they have learned, areas of improvement and 'next steps'.

Phase 3: Administration of a Post Test

A post test was administered to both the experimental and the control groups using the personal data questionnaire, evaluative questionnaire and checklist on documents for school self-evaluation. This was administered a week after the treatment package and it took one week.

3.9 Data Analysis

The data that were collected from the respondents using the various instruments were edited, coded and subjected to statistical treatment. The data were subjected to both descriptive and inferential statistics. All the hypotheses were tested at 0.05 level of significance. The means and standard deviations for pre and post treatment assessment measures were computed. The entire seven hypotheses were tested using the two-way Analysis of Covariance (ANCOVA).

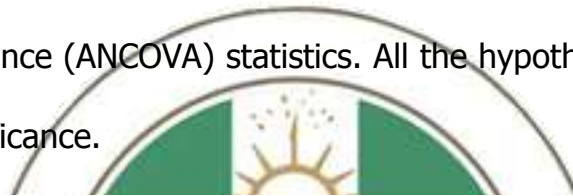


CHAPTER FOUR

RESULTS OF DATA ANALYSIS

4.0 Introduction

This chapter presents the results of the analysis of the data collected. Data collected for the study using the Institutional Self-Evaluation Instrument were analyzed using the descriptive and inferential statistics appropriate for each hypothesis. All the eight hypotheses were tested using two-way analysis of covariance (ANCOVA) statistics. All the hypotheses were tested at 0.05 level of significance.



4.1 Test of Hypotheses

Hypothesis one: There is no significant difference in post treatment scores on school self-evaluation indicators among respondents exposed to the knowledge-based of Educational Effective Research (EER), School Stakeholders Involvement in developing SSE mechanisms and the control group. The hypothesis was tested using analysis of covariance (ANCOVA). The results of the analysis is presented in Tables 3, 4 and 5

Table 3: Descriptive Data on Pretest and Posttest Scores of Institutional Self-Evaluation Instrument across the Experimental Conditions and Status for all Respondents

Group	Status	N	Pretest scores		Posttest scores		Mean Diff.
			Mean	SD	Mean	SD	
Knowledge-base of EER	Teacher	29	225.59	8.50	296.17	10.19	-70.58
	Student	43	209.09	10.68	291.74	16.45	-82.65
	Total	72	215.74	2.74	293.53	14.34	-77.79
School Stakeholders' involvement	Teacher	31	229.55	11.35	290.65	12.13	-61.10
	Student	45	213.51	9.73	282.47	17.50	-68.96
	Total	76	220.05	13.04	285.80	15.96	-65.75
Control	Teacher	28	231.71	10.99	232.36	13.42	-0.65
	Student	41	225.49	11.98	225.12	9.98	0.37
	Total	69	228.01	11.91	228.06	11.96	-0.05
Total	Teacher	88	228.93	10.52	273.92	31.00	-44.99
	Student	129	215.84	12.72	267.33	32.81	-51.49
	Total	217	221.15	13.50	270.00	32.18	-48.85

The data in Table 3 shows that participants exposed to knowledge-base of EER had the highest mean difference of 77.79 followed by those exposed to school stakeholders' involvement with mean difference of 65.75. The control group had the lowest mean difference of 0.05 on the institutional self-evaluation indicators.

To determine if significant difference existed in the status of school self-evaluation among the groups across the experimental conditions, the analysis of covariance statistics (ANCOVA) was done. The result is presented in Table 4

Table 4: Two-Way Analysis of Covariance (ANCOVA) on Differences in scores on Institutional Self-Evaluation Indicators across Experimental Conditions

Source	Sum of Squares	Degree of Freedom	Mean of Squares	F-value
Corrected Model	183699.02	6	30616.50	160.91*
Covariate	504.47	1	504.47	2.65
Exp. Group	157801.63	2	78900.81	414.67*
Status	584.57	1	584.57	3.07
Exp. Group vs. Status	227.36	2	113.68	0.60
Error	39957.97	210	190.28	
Total	383316.02			

*Significant at 0.05; df = 1, 2, & 210; Critical F = 3.89 & 3.04 respectively

The data in Table 4 shows that a calculated F-value of 414.67 was obtained as differences in institutional self-evaluation indicators among the three groups due to experimental conditions. The calculated F-value of 414.67 is greater than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance. This implies that significant differences exist in post test scores on school self-evaluation instruments among the three groups. The results of the analysis in Table 4 also show that a calculated F value of 3.07 resulted as the influence of status of participants on the institutional self-evaluation indicators. This calculated F-value is not significant since it is lower than the critical F-value of 3.89 given 1 and 210 degrees of freedom at 0.05 level of significance. This implies that no

significant difference exists in post test scores between teachers and students on the institutional self-evaluation indicators.

Further evidence from Table 4 revealed that the interaction effect between experimental condition and participants' status on the institutional self-evaluation indicators resulted in a calculated F-value of 0.60 which is not significant since it is less than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance.

As a result of the significant difference in the post test scores on school self-evaluation among the experimental groups, a post hoc test analysis was done to determine which of the groups differ from the other on the status of school self-evaluation and the nature of the difference using the Fisher's Least Square Method. The result of the analysis is provided in Table 5.

Table 5: Fisher's Least Square Method on Differences in the Post Test Scores on the Status of School Self-Evaluation among Respondents in the Three Groups

Group	Knowledge-base of EER n = 72	School Stakeholders' involvement n = 76	Control n = 69
Knowledge-base of EER	293.53 ^a	3.40*	28.16*
School Stakeholders' involvement	7.73	285.80	25.15*
Control	65.47	57.74	228.06

a = group means are in the diagonal; difference in group means are below the diagonal while protected t-values are above the diagonal

*Significant at 0.05

The data in Table 5 show that participants exposed to the knowledge-base of EER significantly demonstrated higher performance in school self-evaluation than those with School Stakeholders' Involvement in School Self-evaluation (calculated $t=3.40$; $df=146$; critical $t=1.96$; $p<0.05$). Again, participants exposed to the knowledge-base of EER significantly exhibited higher performance in school self-evaluation than the control group (cal $t=28.16$; $df=139$; critical $t=1.96$; $p<0.05$). Similarly participants exposed to School Stakeholders' Involvement in school self-evaluation significantly have higher performance in school self-evaluation than the control group (cal $t=25.15$; $df=145$; critical $t=1.96$). The null hypothesis is, therefore, rejected.

Hypothesis two: There is no significant difference in post treatment scores on the structure of the curriculum indicator among respondents exposed to the knowledge-base of Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group. The hypothesis was tested using the two-way analysis of covariance (ANCOVA) statistics. The result of the analysis is presented in Tables 6, 7 and 8.

Table 6: Descriptive Data on the Structure of the Curriculum Indicator among Respondents across Experimental Conditions and Status

Group	Status	N	Pretest		Post test		Mean
			Mean	SD	Mean	SD	Diff.
Knowledge-base of EER	Teacher	29	13.93	2.48	25.31	2.22	-11.38
	Student	43	13.72	2.75	23.60	2.39	-9.88
	Total	72	13.81	2.63	24.29	2.46	-10.48
School Stakeholders' involvement	Teacher	31	18.97	2.95	24.06	2.41	-5.09
	Student	45	14.58	2.57	22.22	1.98	-7.64
	Total	76	16.37	3.48	22.97	2.33	-6.60
Control	Teacher	28	16.46	2.89	16.96	3.14	-0.50
	Student	41	16.88	2.11	17.73	2.21	-0.85
	Total	69	16.71	2.44	16.23	2.68	0.45
Total	Teacher	88	16.51	3.45	22.22	4.47	-5.71
	Student	129	15.02	2.81	20.62	4.04	-5.60
	Total	217	15.63	3.16	21.27	4.28	-5.64

From Table 6, participants exposed to knowledge-base of EER had the highest mean difference of 10.48 followed by those exposed to school stakeholders' involvement with mean difference of 6.60. The control group had the lowest mean difference of 0.45, on the structure of the curriculum indicator.

To determine whether significant difference in the structure of the curriculum existed across the experimental conditions, the two-way analysis of covariance (ANCOVA) statistics was used to analyze the data. The result of the analysis is presented in Table 7.

Table 7: Two-Way Analysis of Covariance (ANCOVA) on Difference in Scores the Structure of the Curriculum across Experimental Conditions

Source	Sum of Squares	Degree of Freedom	Mean of Squares	F-value
Corrected Model	2767.35	6	461.23	81.59*
Covariate	0.01	1	0.01	1.00
Exp. Group	2381.92	2	1190.96	210.67*
Status	123.85	1	123.85	21.91*
Exp. Group vs. Status	3.22	2	1.61	0.29
Error	1187.15	210	5.65	
Total	6463.50			

*Significant at 0.05; df = 1, 2, & 210; Critical F = 3.89 & 3.04 respectively

The results in Table 7 show that a calculated F-value of 210.67 resulted as the difference in the structure of the curriculum indicator among the three experimental groups due to experimental conditions. This calculated F-value of 210.67 is statistically significant since it is greater than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance. This implies that there is significant difference in the posttest scores on the structure of the curriculum indicator among the three groups. Table 7 also shows that a calculated F-value of 21.91 resulted as the influence of status of participants on the structure of the curriculum. This calculated F-value is significant since it is greater than the critical F-value of 3.89 given 1 and 210 degrees of freedom at 0.05 level of significance. This implies that there is significant difference between teachers and students in the post test scores

on the structure of the curriculum indicator. Teachers generally had higher mean scores than students on this indicator. The results in Table 7 show that the total mean for teachers (Mean = 22.22, SD = 4.47) is significantly higher than that of students (Mean = 20.62, SD = 4.04) on the structure of the curriculum indicator

Further evidence from Table 7 revealed that the interaction effect between experimental condition and participants' status (teacher or student) on the structure of the curriculum indicator resulted in F-value of 0.29 which is not significant since it is less than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance.

Due to the significant effects of the experimental conditions on the structure of the curriculum indicator, post hoc test comparisons were carried out to determine which pair of the group means exhibited significant difference as well as the trend of the difference using Fisher's protected t-test. The pair wise comparison of group means is reported in Table 8.

Table 8: Fisher's Protected t-test on Differences in Participants Performance on the Structure of the Curriculum Indicator

Group	Knowledge-base of EER n = 72	School Stakeholders' involvement n = 76	Control n= 69
Knowledge-base of EER	24.29 ^a	3.37*	20.10*
School Stakeholders' involvement	1.32	22.97	17.02*
Control	8.06	6.74	16.23

a = group means are in the diagonal; difference in group means are below the diagonal while protected t-values are above the diagonal

*Significant at 0.05

The data in Table 8 show that participants exposed to the knowledge-base of EER significantly performed higher in the structure of the curriculum indicator than those exposed to School Stakeholders' Involvement in School Self-evaluation (cal $t=3.37$; $df=146$; critical $t=1.96$; $p<0.05$). Again, participants exposed to the knowledge-base of EER significantly performed better on the structure of the curriculum indicator than the control group (cal $t=20.10$; $df=139$; critical $t=1.96$; $p<0.05$). Similarly, participants treated with School Stakeholders' Involvement in school self-evaluation significantly have higher performance on the structure of the curriculum indicator than the control group (cal $t=17.02$; $df=145$; critical $t=1.96$). The null hypothesis is, therefore, rejected.

Hypothesis three: There is no significant difference in post treatment scores on the overall quality of attainment indicator among respondents exposed to the knowledge-base of Educational Effective Research (EER), School Stakeholders Involvement in developing SSE mechanisms and the control group. To test this hypothesis, the two-way analysis of covariance (ANCOVA) statistics was used and the result of the analysis is presented in Tables 9, 10 and 11.

Table 9: Descriptive Data on the Overall Quality of Attainment Indicator among Respondents across Experimental Conditions and Status

Group	Status	N	Pretest		Post test		Mean Diff.
			Mean	SD	Mean	SD	
Knowledge-base of EER	Teacher	29	12.90	1.70	19.62	1.12	-6.72
	Student	43	11.33	1.54	16.47	1.56	-5.14
	Total	72	11.96	1.77	17.74	2.09	-5.78
School Stakeholders' involvement	Teacher	31	12.90	1.96	17.87	1.65	-4.97
	Student	45	11.33	1.90	15.53	1.78	-4.20
	Total	76	11.76	2.14	16.49	2.07	-4.73
Control	Teacher	28	12.61	1.03	12.57	1.45	0.04
	Student	41	11.27	1.76	9.90	2.27	1.37
	Total	69	11.81	1.64	10.99	2.37	0.82
Total	Teacher	88	12.81	1.61	16.76	3.29	-3.95
	Student	129	11.19	1.74	14.05	3.43	-2.86
	Total	217	11.84	1.68	15.15	3.62	-3.31

From Table 9, participants exposed to knowledge-base of EER had the highest mean deviation score of 5.78 followed by those exposed to school

stakeholders' involvement with mean difference of 4.73 while the control group had the lowest mean difference of 0.82, on the overall quality of attainment indicator.

To determine whether significant differences in the overall quality of attainment indicator exist, the two-way analysis of covariance statistics was used. The result is presented in Table 10.

Table 10: Two-Way Analysis of Covariance (ANCOVA) on Difference in scores on the Overall Quality of Attainment Indicator across Experimental Conditions

Source	Sum of Squares	Degree of freedom	Mean of Squares	F-value
Corrected Model	2205.67	6	367.61	124.45*
Covariate	0.36	1	0.36	0.12
Exp. Group	1758.54	2	879.27	297.67*
Status	306.84	1	306.84	103.87*
Exp. Group vs. Status	6.12	2	3.06	1.04
Error	620.31	210	2.95	
Total	4897.84			

*Significant at 0.05; df = 1, 2, & 210; Critical F = 3.89 & 3.04 respectively

The results in Table 10 show that a calculated F-value of 297.67 resulted as the difference in overall quality of attainment indicator among the three groups due to experimental conditions. This calculated F-value of 297.67 is statistically significant since it is greater than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance. This implies

that there is significant difference in the posttest scores on the overall quality of attainment indicator among the three groups. Table 10 also shows that a calculated F-value of 103.87 resulted as the influence of status of participants on the overall quality of attainment indicator. This calculated F-value is significant since it is greater than the critical F-value of 3.89 given 1 and 210 degrees of freedom at 0.05 level of significance. This implies that there is significant difference between teachers and students in the post test scores on the overall quality of attainment indicator. Teachers generally had higher mean scores than students on this indicator. The results in Table 10 show that the total mean for teachers (Mean = 16.76, SD = 3.29) is higher than that of students (Mean = 14.05, SD = 3.43) on the overall quality of attainment indicator

Further evidence from Table 10 revealed that the interaction effect between experimental condition and participants' status on the overall quality of attainment indicator resulted in calculated F-value of 1.04 which is not significant since it is less than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance.

Due to the significant effects of the experimental conditions on the overall quality of attainment indicator, the post hoc test comparisons were carried out to determine which pair of the group means exhibited significant difference as well as the trend of the difference using Fisher's protected t-test. The pair wise comparison of group means is reported in Table 11.

Table 11: Fisher's Protected t-test on Differences in Participants Performance on the Overall Quality of Attainment Indicator

Group	Knowledge- base of EER n = 72	School Stakeholders' involvement n = 76	Control n= 69
Knowledge-base of EER	17.74 ^a	4.42*	23.30*
School Stakeholders' involvement	1.25	16.49	19.22*
Control	6.75	5.50	10.99

a = group means are in the diagonal; difference in group means are below the diagonal while protected t-values are above the diagonal

*Significant at 0.05

The data in Table 11 show that participants exposed to the knowledge-base of EER significantly demonstrated a higher performance in the overall quality of attainment indicator than those exposed to School Stakeholders' Involvement in School Self-evaluation (cal $t=4.42$; $df=146$; critical $t=1.96$; $p<0.05$). Again, participants exposed to the knowledge-base of EER significantly showed a higher performance than the control group (cal $t=23.30$; $df=139$; critical $t=1.96$; $p<0.05$). Similarly, participants exposed to School Stakeholders' Involvement in school self-evaluation significantly have higher performance in the overall quality of attainment indicator than the control group (cal $t=19.22$; $df=143$; critical $t=1.96$). The null hypothesis is, therefore, rejected.

Hypothesis four: There is no significant difference in post treatment scores on the teaching and learning process indicator among respondents exposed to the knowledge-base of Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group. To test this hypothesis, the two-way analysis of covariance statistics was used. The result of the analysis pertaining to this hypothesis is presented in Tables 12, 13 and 14.

Table 12: Descriptive Data on Teaching and Learning Indicator among Respondents across Experimental Conditions and Status

Group	Status	N	Pretest		Post test		Mean Diff.
			Mean	SD	Mean	SD	
Knowledge-base of EER	Teacher	29	55.00	5.43	66.38	3.32	-11.38
	Student	43	48.19	3.25	65.12	6.79	-16.93
	Total	72	50.93	5.40	65.63	5.66	-14.70
School Stakeholders' involvement	Teacher	31	52.68	6.59	68.13	6.17	-15.45
	Student	45	51.80	3.24	66.22	7.95	-14.42
	Total	76	52.16	4.87	67.00	7.29	-14.84
Control	Teacher	28	54.79	2.83	56.93	3.37	-2.14
	Student	41	53.56	4.17	54.22	.45	-0.66
	Total	69	54.06	3.71	55.32	4.24	-1.26
Total	Teacher	88	54.11	5.30	63.99	6.65	-9.88
	Student	129	51.16	4.18	62.04	8.48	-10.88
	Total	217	52.35	4.88	62.83	7.84	-10.48

From Table 12, the participants exposed to treatment on School Stakeholders' Involvement made the highest mean difference of 14.84 followed by those treated with knowledge-base of Educational Effective

Research (EER) with mean difference of 14.70. The control group had the lowest mean difference of 1.26 on teaching and learning process indicator.

To determine whether the mean differences in the teaching and learning process indicator among the respondents is statistically significant, the two-way analysis of covariance (ANCOVA) statistics was used to analyze the data. The result is presented in Table 13.

Table 13: Two-Way Analysis of Covariance (ANCOVA) on Difference in Scores on Teaching and Learning Indicator across Experimental Conditions

Source	Sum of Squares	Degree of Freedom	Mean of Squares	F-value
Corrected Model	6080.99	6	1013.50	29.64*
Covariate	87.69	1	87.69	2.57
Exp. Group	5502.97	2	2751.46	80.48*
Status	107.50	1	107.50	3.14
Exp. Group vs. Status	42.58	2	21.29	0.62
Error	7179.70	210	34.19	
Total	19001.43			

*Significant at 0.05; df = 1, 2, & 210; Critical F = 3.89 & 3.04 respectively

The results in Table 13 show that a calculated F-value of 80.48 resulted as the difference in teaching and learning process indicator among the three groups due to experimental conditions. This calculated F-value of 80.48 is statistically significant since it is greater than the critical F-value of 3.04

given 2 and 210 degrees of freedom at 0.05 level of significance. This implies that there is significant difference in the posttest scores on teaching and learning process indicator among the three groups. The results of the analysis in Table 13 also show that a calculated F-value of 3.14 resulted as the influence of status of participants on the teaching and learning process indicator. This calculated F-value is not significant since it is less than the critical F-value of 3.89 given 1 and 210 degrees of freedom at 0.05 level of significance. This implies that no significant difference exists in post test scores between teachers and students on the teaching and learning process indicator.

Further evidence from Table 13 revealed that the interaction effect between experimental condition and participants' status on teaching and learning process indicator resulted in a calculated F-value of 0.62 which is not significant since it is less than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance.

Due to the significant effects of the experimental conditions on the teaching and learning process indicator, post hoc test comparisons were carried out to determine which pair of the group means exhibited significant difference and the trend of the difference using Fisher's Protected T-test. The pair wise comparison of group means is reported in Table 14.

Table 14: Fisher's Protected t-test on Differences in Participants Performance on Teaching and Learning Indicator

Group	Knowledge- base of EER n = 72	School Stakeholders' involvement n = 76	Control n= 69
Knowledge-base of EER	65.63 ^a	-1.42	10.47*
School Stakeholders' involvement	-1.37	67.00	12.00*
Control	10.31	11.68	55.32

a = group means are in the diagonal; difference in group means are below the diagonal while protected t-values are above the diagonal

*Significant at 0.05

Table 14 shows that the participants exposed to knowledge-base of EER on school self-evaluation do not significantly differ, on the teaching and learning process indicator, from their counterparts exposed to School Stakeholders' Involvement in school self-evaluation (cal $t=-1.42$; $df=146$; critical $t=1.96$; $p>0.05$). However, the knowledge-base of EER group significantly have higher performance on the teaching and learning process indicator than those in the control group (cal $t=10.47$; $df=139$; critical $t=1.96$; $p<0.05$). Similarly the school stakeholders' involvement group significantly performed better than the control group (cal $t=17.70$; $df=143$; critical $t=1.96$; $p<0.05$). Therefore, the null hypothesis is rejected.

Hypothesis five: There is no significant difference in post treatment scores on support for pupils' indicator among respondents exposed to the knowledge-based of Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group. The hypothesis was tested using the two-way analysis of covariance (ANCOVA) statistics. The results pertaining to this hypothesis is presented in Tables 15, 16 and 17.

Table 15: Descriptive Data on Supports for Pupils' Indicator among Respondents across Experimental Conditions

Group	Status	N	Pretest		Post test		Mean Diff.
			Mean	SD	Mean	SD	
Knowledge-base of EER	Teacher	29	38.03	4.62	53.93	3.70	-15.90
	Student	43	36.88	4.91	55.40	4.12	-18.52
	Total	72	37.35	4.80	54.81	4.02	-17.46
School Stakeholders' involvement	Teacher	31	39.55	5.42	52.84	4.08	-13.29
	Student	45	39.20	5.53	52.67	4.15	-13.47
	Total	76	39.34	5.45	52.74	4.09	-13.40
Control	Teacher	28	39.75	7.19	40.89	6.98	-1.14
	Student	41	40.24	5.41	42.34	4.53	-2.10
	Total	69	40.04	6.15	41.75	5.66	-1.71
Total	Teacher	88	39.11	5.80	49.40	7.72	-10.69
	Student	129	38.76	5.43	50.29	7.00	-11.56
	Total	217	38.90	5.74	49.93	7.30	-11.03

From Table 15, the participants exposed to treatment on knowledge-base of EER made the highest mean difference of 17.46 followed by those treated with School Stakeholders' Involvement with a mean difference of 13.40. The

control group had the lowest mean difference of 1.71 on supports for pupils' indicator.

To determine whether the mean differences in supports for pupils' indicator among the respondents is statistically significant, the two-way analysis of covariance (ANCOVA) statistics was used to analyze the data. The result is presented in Table 16.

Table 16: Two-Way Analysis of Covariance (ANCOVA) on Difference in Scores on Supports for Pupils' Indicator across Experimental Conditions

Source	Sum of Squares	Degree of freedom	Mean of Squares	F-value
Corrected Model	7935.95	6	1322.66	77.98*
Covariate	40.22	1	40.22	2.37
Exp. Group	7347.83	2	3673.92	216.60*
Status	56.66	1	56.66	3.34
Exp. Group vs. Status	38.08	2	17.54	1.03
Error	3562.02	210	16.96	
Total	19880.76			

*Significant at 0.05; df = 1, 2, & 210; Critical F = 3.89 & 3.04 respectively

According to the results in Table 16, the calculated F-value of 216.60 resulted as the difference in supports for pupils' indicator among the three experimental groups due to experimental conditions. This calculated F-value of 216.60 is statistically significant since it is greater than the critical F-value

of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance. This implies that there is significant difference in the posttest scores on supports for pupils' indicator among the participants in the three groups. The results of the analysis in Table 16 also show that a calculated F-value of 3.34 resulted as the influence of status of participants on the supports for pupils' indicator. This calculated F-value is not significant since it is lower than the critical F-value of 3.89 given 1 and 210 degrees of freedom at 0.05 level of significance. This implies that no significant difference exists in post test scores between teachers and students on the supports for pupils' indicator.

Further evidence from Table 16 revealed that the interaction effect between experimental condition and participants' status on supports for pupils' indicator resulted in calculated F-value of 1.03 which is not significant since it is less than the critical F value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significant.

Due to the significant effects of the experimental conditions on the supports for pupils' indicator, post hoc test comparisons were carried out to determine which pair of the group means exhibited significant difference and the trend of the difference using Fisher's Protected T-test. The pair wise comparison of group means is reported in Table 17.

Table 17: Fisher's Protected t-test on Differences in Participants Performance on Supports for Pupils' Indicator

Group	Knowledge-base of EER n = 72	School Stakeholders' involvement n = 76	Control n= 69
Knowledge-base of EER	54.81 ^a	3.05*	8.82*
School Stakeholders' involvement	2.07	52.74	6.04*
Control	13.06	10.99	41.75

a = group means are in the diagonal; difference in group means are below the diagonal while protected t-values are above the diagonal

*Significant at 0.05

Table 17 shows that the participants exposed to knowledge-base of EER on school self-evaluation significantly had higher performance on the supports for pupils' indicator than their counterparts exposed to School Stakeholders' Involvement in school self-evaluation (cal $t=3.05$; $df=146$; critical $t=1.96$; $p<0.05$). Also the knowledge-base of EER group significantly had higher performance on the supports for pupils' indicator than those in the control group (cal $t=10.56$; $df=139$; critical $t=1.96$; $p<0.05$). Similarly the school stakeholders' involvement group significantly exhibited a higher performance than the control group (cal $t=17.70$; $df=143$; critical $t=1.96$; $p<0.05$). Therefore, the null hypothesis is rejected.

Hypothesis six: There is no significant difference in post treatment scores on ethos (climate and relationship) indicator among respondents exposed to the knowledge-base of Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group. The hypothesis was tested using the two-way analysis of covariance. The results pertaining to this hypothesis is presented in Tables 18, 19 and 20.

Table 18: Descriptive Data on Climate and Relationships Indicator among Respondents across Experimental Conditions

Group	Status	N	Pretest		Post test		Mean Diff.
			Mean	SD	Mean	SD	
Knowledge-base of EER	Teacher	29	33.86	4.08	40.48	3.09	-6.62
	Student	43	30.81	3.72	41.56	5.13	-10.75
	Total	72	32.04	4.13	41.13	4.43	- 9.09
School Stakeholders' involvement	Teacher	31	32.45	3.28	39.03	3.05	-6.58
	Student	45	28.91	4.56	36.76	3.31	-7.85
	Total	76	30.36	4.42	39.46	3.21	-9.04
Control	Teacher	28	32.89	3.54	33.79	3.94	-0.90
	Student	41	30.73	4.21	33.71	3.74	-2.98
	Total	69	31.61	4.07	33.74	3.79	-2.13
Total	Teacher	88	33.06	3.65	37.84	4.38	-4.78
	Student	129	30.12	4.24	38.43	5.27	-8.31
	Total	217	31.31	4.26	38.19	4.93	-6.88

From Table 18, the participants exposed to treatment on knowledge-base of EER made the highest mean difference of 9.09 followed by those treated with School Stakeholders' Involvement who had a mean difference of 9.04. The control group had the lowest mean difference of 2.13 on climate and relationships indicator.

To determine whether the mean differences in climate and relationships indicator among the respondents is statistically significant, the two-way analysis of covariance (ANCOVA) statistics was used to analyze the data. The result is presented in Table 19.

Table 19: Two-Way Analysis of Covariance (ANCOVA) on Difference in Scores on Climate and Relationships Indicator across Experimental Conditions

Source	Sum of Squares	Degree of Freedom	Mean of Squares	F-value
Corrected Model	2149.70	6	358.28	24.27*
Covariate	10.16	1	10.16	0.69
Exp. Group	1975.12	2	987.61	66.90*
Status	7.84	1	7.84	0.53
Exp. Group vs. Status	10.64	2	5.32	0.36
Error	3100.17	210	14.76	
Total	7253.63			

*Significant at 0.05; df = 1, 2, & 210; Critical F = 3.89 & 3.04 respectively

The results in Table 19 show that a calculated F-value of 66.90 resulted as the difference in climate and relationship indicator among the three experimental groups due to experimental conditions. This calculated F-value of 66.90 is statistically significant since it is greater than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance. This implies that there is significant difference in the posttest scores on climate and relationships indicator among the three groups. The results of the analysis in Table 19 also show that a calculated F-value of 0.53 resulted as the influence of status of participants on the climate and relationship indicator. This calculated F-value is not significant since it is lower than the critical F-value of 3.89 given 1 and 210 degrees of freedom at 0.05 level of significance. This implies that no significant difference exist in post test scores between teachers and students on the climate and relationships indicator.

Further evidence from Table 19 reveals that the interaction effect between experimental condition and participants' status on climate and relationship indicator resulted in calculated F-value of 0.36 which is not significant since it is less than the critical F value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significant. This implies that status of the respondents (student or teacher) did not post significant effect in the experimental groups; their interaction was also not significant among participants in the post test scores on climate and relationships indicator.

Due to the significant effects of the experimental conditions on the climate and relationships indicator, post hoc test comparisons were carried out to determine which pair of the group means exhibited significant difference and the trend of the difference using Fisher's Protected T-test. The pair wise comparison of group means is reported in Table 20.

Table 20: Fisher's Protected t-test on Differences in Participants Performance on Climate and Relationships Indicator

Group	Knowledge-base of EER n = 72	School Stakeholders' involvement n = 76	Control n = 69
Knowledge-base of EER	41.13 ^a	2.64*	11.42*
School Stakeholders' involvement	1.67	39.46	8.95*
Control	7.39	5.72	33.74

a = group means are in the diagonal; difference in group means are below the diagonal while protected t-values are above the diagonal

*Significant at 0.05

Table 20 shows that the participants exposed to knowledge-base of EER on school self-evaluation significantly demonstrated higher performance on the climate and relationships indicator, than their counterparts exposed to School Stakeholders' Involvement in school self-evaluation (cal $t=2.64$; $df=146$; critical $t=1.96$; $p<0.05$). Also the knowledge-base of EER group significantly had higher performance on the supports for pupils' indicator than those in

the control group (cal $t=11.42$; $df=139$; critical $t=1.96$; $p<0.05$). Similarly, the school stakeholders' involvement group significantly showed a higher performance than the control group (cal $t=8.95$; $df=143$; critical $t=1.96$; $p<0.05$). Therefore, the null hypothesis is rejected.

Hypothesis seven: There is no significant difference in post treatment scores on resources (accommodation and facilities) indicator among respondents exposed to the knowledge-based of Educational Effective Research (EER), School Stakeholders Involvement in developing SSE mechanisms and the control group. The hypothesis was tested using the two-way analysis of covariance (ANCOVA) statistics. The results pertaining to this hypothesis is presented in Tables 21, 22 and 23.



Table 21: Descriptive Data on Resources (Accommodation and Facilities) Indicator among Respondents across Experimental Conditions

Group	Status	N	Pretest		Post test		Mean
			Mean	SD	Mean	SD	Diff.
Knowledge-base of EER	Teacher	29	40.90	3.74	49.66	3.30	-8.76
	Student	43	41.28	5.40	51.98	6.91	-10.70
	Total	72	41.13	.78	51.04	5.82	-9.91
School Stakeholders' involvement	Teacher	31	43.68	4.74	48.68	4.96	-5.00
	Student	45	41.18	5.36	47.80	4.61	-6.62
	Total	76	42.20	5.23	48.16	4.74	-5.96
Control	Teacher	28	42.75	3.90	36.71	2.65	6.04
	Student	41	43.63	6.45	38.71	4.42	4.92
	Total	69	43.28	5.54	37.90	3.91	5.28
Total	Teacher	88	42.47	4.28	45.19	6.95	-2.72
	Student	129	41.99	5.81	46.30	7.69	-4.31
	Total	217	2.18	5.24	45.85	7.40	-3.67

From Table 21, the participants exposed to treatment on knowledge-base of EER made the highest mean difference of 9.61 followed by those treated with School Stakeholders' Involvement who had a mean difference score of 5.96. The control group had the lowest mean difference of 5.28 on resources (accommodation and facilities) indicator.

To determine whether the mean differences in resources (accommodation and facilities) indicator among the respondents is statistically significant, the two-way analysis of covariance (ANCOVA) statistics was used to analyze the data. The result is presented in Table 22.

Table 22: Two-Way Analysis of Covariance (ANCOVA) on Difference in Scores on Resources Indicator across Experimental Conditions

Source	Sum of Squares	Degree of Freedom	Mean of Squares	F-value
Corrected Model	6882.90	6	1147.15	48.66*
Covariate	1.32	1	1.32	0.06
Exp. Group	6426.30	2	3213.15	136.31*
Status	69.21	1	69.21	2.94
Exp. Group vs. Status	105.38	2	52.69	2.24
Error	4950.38	210	23.57	
Total	8434.17			

*Significant at 0.05; df = 1, 2, & 210; Critical F = 3.89 & 3.04 respectively

The results in Table 22 show that a calculated F-value of 136.31 resulted as the difference among the three groups due to experimental conditions. This calculated F-value of 136.31 is statistically significant since it is greater than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance. This implies that there is significant difference in the posttest scores on resources indicator among the three groups. The results in Table

22 also show that a calculated F-value of 2.94 resulted as the influence of status of participants on the resources indicator. This calculated F-value is not significant since it is lower than the critical F-value of 3.89 given 1 and 210 degrees of freedom at 0.05 level of significance. This implies that no significant difference exists in post test scores between teachers and students on the resources (accommodation and facilities) indicator.

Further evidence from Table 22 revealed that the interaction effect between experimental condition and participants' status on resources indicator resulted in a calculated F-value of 2.24 which is not significant since it is less than the critical F value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance. This implies that status of the respondents (student or teacher) did not post significant effect in the experimental groups; their interaction was also not significant among participants in the post test scores on resources indicator.

Due to the significant effects of the experimental conditions on the resources indicator, post hoc test comparisons were carried out to determine which pair of the group means exhibited significant difference and the trend of the difference using Fisher's Protected T-test. The pair wise comparison of group means is reported in Table 23.

Table 23: Fisher's Protected t-test on Differences in Participants Performance on Resources (Accommodation and Facilities) Indicator

Group	Knowledge- base of EER n = 72	School Stakeholders' involvement n = 76	Control n= 69
Knowledge-base of EER	51.04 ^a	3.60*	6.04*
School Stakeholders' involvement	2.88	48.16	12.68*
Control	13.14	10.26	37.90

a = group means are in the diagonal; difference in group means are below the diagonal while protected t-values are above the diagonal

*Significant at 0.05

Table 23 shows that the participants exposed to knowledge-base of EER on school self-evaluation significantly performed higher on the resources indicator, than their counterparts exposed to School Stakeholders' Involvement in School Self-evaluation (cal $t=3.60$; $df=146$; critical $t=1.96$; $p<0.05$). Also the knowledge-base of EER group significantly had higher performance on the resources indicator than those in the control group (cal $t=16.04$; $df=139$; critical $t=1.96$; $p<0.05$). Similarly, the school stakeholders' involvement group significantly demonstrated higher performance than the control group (cal $t=12.68$; $df=143$; critical $t=1.96$; $p<0.05$). Therefore, the null hypothesis is rejected.

Hypothesis eight: There is no significant difference in post treatment scores on management, leadership and quality assurance indicator among respondents exposed to the knowledge-based of Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group. To test this hypothesis, the two-way analysis of covariance (ANCOVA) statistics was used and the result of the analysis is presented in Tables 24, 25 and 26.

Table 24: Descriptive Data on the Management, Leadership and Quality Assurance Indicator among Respondents across Experimental Conditions

Group	Status	N	Pretest		Post test		Mean Diff.
			Mean	SD	Mean	SD	
Knowledge-base of EER	Teacher	29	30.97	2.98	40.79	3.40	-9.82
	Student	43	26.88	2.24	37.63	3.18	-10.75
	Total	72	28.53	3.25	38.90	3.60	-10.37
School Stakeholders' involvement	Teacher	31	29.32	2.91	40.03	2.60	-10.71
	Student	45	26.87	3.28	38.27	3.48	-11.40
	Total	76	27.87	3.34	38.99	3.24	-11.12
Control	Teacher	28	32.46	1.92	34.50	2.03	-2.04
	Student	41	29.17	2.98	30.51	2.83	-1.34
	Total	69	30.51	3.06	32.13	3.20	-1.62
Total	Teacher	88	30.86	2.93	38.52	3.88	-7.66
	Student	129	27.60	3.05	35.59	4.70	-7.99
	Total	217	28.93	3.40	36.78	4.61	-7.85

From Table 24, the participants exposed to School Stakeholders' Involvement in defining criteria of SSE, made the highest mean difference of 11.12 followed by those exposed to SSE mechanisms which are in line with the knowledge-base of EER with mean difference of 10.37 respectively. The control group had the lowest mean difference of 1.62 on the management, leadership and quality assurance indicator.

To determine whether significant differences in the management, leadership and quality assurance indicator exist, the two-way analysis of covariance (ANCOVA) statistics was used. The result is presented in Table 25.

Table 25: Two-Way Analysis of Covariance (ANCOVA) on Difference in Scores on Management, Leadership and Quality Assurance Indicator across Experimental Conditions

Source	Sum of Squares	Degree of Freedom	Mean of Squares	F-value
Corrected Model	682.55	6	447.09	49.19*
Covariate	0.98	1	0.98	0.11
Exp. Group	1793.63	2	896.82	98.66*
Status	325.78	1	325.78	35.84*
Exp. Group vs. Status	43.19	2	21.59	2.38
Error	1908.84	210	9.09	
Total	6754.97			

*Significant at 0.05; df = 1, 2, & 210; Critical F = 3.89 & 3.04 respectively

The results in Table 25 show that a calculated F-value of 98.66 resulted as the difference among the three groups due to experimental conditions. This calculated F-value of 98.66 is statistically significant since it is greater than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance. This implies that there is significant difference in the posttest scores on management, leadership and quality assurance indicator among the three groups. Table 25 also shows that a calculated F-value of 35.84 resulted as the influence of status of participants' on the management, leadership and quality assurance indicator. This calculated F-value is significant since it is higher than the critical F-value of 3.89 given 1 and 210 degrees of freedom at 0.05 level of significance. This implies that there is significant difference between teacher participants and student participants in the post test scores on the management, leadership and quality assurance indicator. Teachers generally had higher mean scores than students on this indicator. The results in Table 24 show that the total mean for teachers (Mean = 38.52, SD = 3.88) is higher than that of students (Mean = 35.59, SD = 4.70) on the management, leadership and quality assurance indicator.

Further evidence from Table 25 revealed that the interaction effect between experimental condition and participants' status on management, leadership and quality assurance indicator resulted in calculated F-value of 2.38 which is not significant since it is lower than the critical F-value of 3.04 given 2 and 210 degrees of freedom at 0.05 level of significance.

Due to the significant effects of the experimental conditions on the management, leadership and quality assurance indicator, post hoc comparisons were carried out to determine which pair of the group means exhibited significant difference as well as the trend of the difference using Fisher's Protected T-test. The pair wise comparison of group means is reported in Table 26.

Table 26: Fisher's Protected t-Test on Differences in Participants Performance on the Management, Leadership and Quality Assurance Indicator

Group	Knowledge-base of EER n = 72	School Stakeholders' involvement n = 76	Control n= 69
Knowledge-base of EER	38.90 ^a	-0.18	13.32*
School Stakeholders' involvement	-0.09	38.99	13.67*
Control	6.77	6.86	32.13

a = group means are in the diagonal; difference in group means are below the diagonal while protected t-values are above the diagonal

*Significant at 0.05

The data in Table 26 show that participants exposed to the training on knowledge-base of EER do not significantly differ, on management, leadership and quality assurance indicator, from those trained with School Stakeholders Involvement in developing School Self-evaluation mechanisms (cal $t=-0.18$; $df=146$; critical $t=1.96$; $p>0.05$). However, participants exposed to the knowledge-base of EER significantly demonstrated higher

performance in management, leadership and quality assurance indicator than the control group (cal $t=13.32$; $df=139$; critical $t=1.96$; $p<0.05$). Similarly, participants trained with School Stakeholders' Involvement in developing School Self-evaluation mechanism significantly had higher performance in school self-evaluation than the control group (cal $t=13.67$; $df=143$; critical $t=1.96$). The null hypothesis is, therefore, rejected.

4.2 Summary of Findings

The following are the highlights of the results obtained.

1. The study has shown that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated higher performance in school self-evaluation than those exposed to school stakeholders' involvement in defining the criteria of SSE and the control group. Also the participants exposed to school stakeholders involvement in defining SSE criteria significantly performed higher than the control group. The study also showed that there is no significant difference in the performance of SSE between student participants and teacher participants.
2. The study revealed that the two experimental groups significantly performed higher in the structure of the curriculum indicator than the control group. Also the participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER significantly exhibited higher performance in the structure of the

curriculum indicator than those exposed to school stakeholders' involvement in defining the criteria of SSE. Also teacher-participants significantly demonstrated higher performance in the structure of the curriculum indicator than the students who participated in the study.

3. The study has shown that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated higher performance in the overall quality of attainment indicator than those exposed to school stakeholders' involvement in defining the criteria of SSE and the control group. The participants exposed to the school stakeholders' involvement also significantly recorded a higher performance than the control group. The teacher-participants significantly demonstrated higher performance in the overall quality of attainment indicator than the students who participated in the study.



4. The findings show that no significant difference, in the performance on the teaching and learning processes indicator, exists between participants exposed to the knowledge-base of EER and those exposed to school stakeholders' involvement in defining the criteria for SSE. However, the two experimental groups significantly demonstrated a higher performance on the teaching and learning processes indicator than the control group. Also, there is no significant difference in the

performance in the teaching learning processes indicator between the teacher participants and students who participated in the study.

5. The study has shown that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated higher performance in the supports for pupils indicator than those exposed to school stakeholders' involvement in defining the criteria of SSE and the control group. Similarly the participants exposed to the school stakeholders' involvement also significantly recorded a higher performance in the support for pupils indicator than the control group. Also, no significant difference in the performance in the supports for pupils' indicator exists between teacher and student participants.



6. The findings show that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated higher performance in the climate and relationship indicator than those exposed to school stakeholders' involvement in defining the criteria of SSE and the control group. The participants exposed to the school stakeholders' involvement also significantly recorded a higher performance in the climate and relationship indicator than the control group. However, no significant difference in the performance in the climate and relationship indicator exists between teacher participants and students who participated in the study.

7. The findings show that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated higher performance in the resources (accommodation and facilities) indicator than those exposed to school stakeholders' involvement in defining the criteria of SSE and the control group. The participants exposed to the school stakeholders' involvement also significantly recorded a higher performance in the resources indicator than the control group. However, no significant difference in the performance in the resources indicator exists between teacher and student participants.
8. The findings show that no significant difference, in the performance on the management, leadership and quality assurance indicator exists between participants exposed to the knowledge-base of EER and those exposed to school stakeholders' involvement in defining the criteria for SSE. However, the two experimental groups significantly demonstrated a higher performance on the teaching and learning processes indicator than the control group. Also there is no significant difference in the performance in the management, leadership and quality assurance indicator between the teachers and students who participated in the study.

CHAPTER FIVE

DISCUSSION OF FINDINGS, SUMMARY AND CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

5.0 Introduction

This study examined the impact of school self-evaluation training on improvement of basic schools in Ghana. Eighty-eight Junior High School (JHS) teachers and 129 JHS two students were sampled from three public basic schools in the Sunyani Municipal Education directorate. The participants from the three selected schools were assigned to one of the two training groups or the control group. The municipality, circuits, schools and a JHS two stream were selected using the multistage sampling technique. The sampling techniques include the simple random, cluster and purposive.

The major objective of the study was to establish the effectiveness or otherwise of training on the establishment of SSE mechanisms which are in line with the knowledge-base of EER and the involvement of school stakeholders' in defining the criteria of SSE. Seven quality SSE indicators which capture the essential features of programmes for enterprise in education formed the main independent variables for the study. These were the structure of the curriculum, overall quality of attainment, teaching and learning process, supports for pupils, ethos – climate and relationships,

resources (accommodation and facilities) and management, leadership and quality assurance.

The chapter, thus, discusses the findings of the study based on the result of each of the eight hypotheses formulated in the study. Implications of findings for schools, educational policy makers and all other stakeholders in education as well as the recommendations and suggestions for further research are also presented.

5.1 Discussion of Findings

Assessing the effectiveness of the establishment of SSE mechanisms which are in line with the knowledge-base of EER and the involvement of school stakeholders' in defining the criteria of SSE on the Institutional Self-evaluation Instrument at Pre-test and Post-test.

The two-way analysis of covariance was used to determine the differences in scores on institutional self-evaluation indicators among respondents exposed to the knowledge-base of EER, stakeholders' involvement in developing SSE mechanisms and the control group. The descriptive data presented in Table 3 and the ANCOVA results presented in Table 4 indicate that participants in the two experimental groups (those exposed to establishment of SSE mechanisms which are in line with the knowledge-base of EER and school stakeholders' involvement in defining the criteria of SSE) significantly performed higher on the school self-evaluation indicators than those in the

control group. The post-hoc analysis presented in Table 5 also showed that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated higher performance in school self-evaluation indicators than those exposed to school stakeholders' involvement in defining the criteria of SSE. Also, participants exposed to school stakeholders' involvement in defining the criteria for SSE exhibited higher performance in school self-evaluation indicators than those in the control group. The null hypothesis was, therefore, rejected.

The high performance among participants of the two treatments was because the participants in the experimental groups were supported to identify their priorities for improvement and design their own improvement strategies and action plans to improve relevant school factors that would ultimately improve their effectiveness. Similarly, the essential difference of the knowledge-base of EER approach has to do with the fact that a specific theoretical framework guided the design of the SSE mechanisms. Moreover, this experimental group, in addition to developing their own improvement strategies and action plans, took into account the evidence of EER which show how the functioning of relevant factors could be improved. This results is in line with results of evaluation studies measuring the impact of interventions in school self-evaluation which show that SSE approaches can contribute in establishing effective school improvement strategies (Kyriades and Campbell 2004; Kyriades and Creemers 2008; Hofman, Hofman and Gray 2010). The superiority of the knowledge-base of EER over the

stakeholders' involvement supports Scheerens (2000; 2001) who in a series of reviews comparing findings of school effectiveness research studies in developing and developed countries indicated as a major conclusion that inconclusive and weak evidence on the effect of instructional factors that have received empirical support prevails in the developing countries.

Assessing the effectiveness of the establishment of SSE mechanisms which are in line with the knowledge-base of EER and the involvement of school stakeholders' in defining the criteria of SSE on the Seven School Self-evaluation Indicators at Pre-test and Post-test.

The second hypothesis sought to find if a significant difference exists on participants' scores on the structure of the curriculum across experimental conditions. The two-way ANCOVA together with the descriptive statistics was used in analyzing the data for this hypothesis. The results in Tables 6, 7 and 8 revealed that there is significant difference in the posttest scores on the structure of the curriculum indicator among the participants exposed to the two different approaches to school self evaluation and the control group. The post hoc analysis, using Fisher's Protected t-test, also revealed that participants exposed to knowledge-base of EER significantly performed higher in the structure of the curriculum indicator than those exposed to school stakeholders' involvement. The two experimental groups also significantly exhibited higher performance in the structure of the curriculum

indicator than the control group. Also teacher-participants significantly demonstrated higher performance in the structure of the curriculum indicator than the students who participated in the study. This was reflected in their post test total means (teachers Mean = 22.22, SD = 4.47 and students Mean = 20.62, SD = 4.04). The null hypothesis was, therefore, rejected.

The better performance among participants exposed to the two treatments was expected since the participants had been provided with guidelines on curriculum assessment with emphasis on the breadth and balance across elements, timetabling and arrangements for pupil choice as well as courses and programmes. This finding is in line with the findings of Lockheed and Levin (1993) who argue that creating effective schools in developing countries requires necessary inputs in terms of curriculum. Pennycuik (1993), on behalf of DFID, reviewed several interventions considered essential for promoting school effectiveness among which were curriculum content, timetabling and arrangement for pupil-choice, provision of textbooks and learning materials and support for teachers among others. The World Bank Primary Education Policy Paper (1990) and Boissiere (2004) also identified curriculum as one of the five principal contributors to primary education effectiveness.

The third finding of the study is that participants in the two experimental groups (those exposed to establishment of SSE mechanisms which are in line with the knowledge-base of EER and school stakeholders' involvement in

defining the criteria of SSE) significantly demonstrated higher performance on the Overall Quality of Attainment Indicator than those in the control group. In arriving at this finding, the two-way ANCOVA was used. A further analysis, using Fisher's Protected T-test also showed that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated higher performance in the overall quality of attainment indicator than those exposed to school stakeholders' involvement in defining the criteria of SSE. Also participants exposed to school stakeholders' involvement in defining the criteria for SSE exhibited higher performance in the overall quality of attainment indicator than those in the control group. The findings also revealed that participants who were teachers significantly demonstrated higher performance in the overall quality of attainment indicator than the students who participated in the study. This was reflected in their post test total means (teachers Mean = 16.76, SD = 3.29 and students Mean = 14.05, SD = 3.43). This finding is not surprising and is in the expected direction since, in Ghana, teachers are more involved in determining the overall quality of students' attainment through the various formative and summative evaluation practices like the Basic Education Comprehensive Assessment System (BECAS) and the end-of-term/year examination analysis. The null hypothesis was, therefore, rejected.

This finding is in agreement with the works of Kellaghan and Greaney (1992); Pennycuick (1993) Velez, Schiefelbein & Valenzuela (1993) which all revealed that assessing and monitoring student academic progress/attainment is considered an important factor in promoting school effectiveness in both developed countries and developing countries. From the perspectives of developing countries, Kellaghan and Graney (2001; 2004) have been the key proponents of singling out the use of the overall quality of attainment and examination reforms to engineer change at the levels of educational policy to enhance quality through national examinations.



The analyzed results for the fourth hypothesis showed that participants exposed to school stakeholders' involvement in defining the criteria of SSE made the highest mean difference score, followed by those exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER. The control group had the lowest mean deviation score. The above evidence is shown in the descriptive data on the Teaching and Learning Indicator in Table 12. The results of the ANCOVA statistic also showed that a calculated F-value of 80.48 was statistically significant implying that there is significant difference in the post test scores on teaching and learning process indicator among the three groups.

However, a further analysis made using the Fisher's Protected t-test to determine which experimental group differs from the other on the teaching and learning process indicator and the trend of the difference showed that

participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER do not significantly differ, in the teaching and learning process indicator, from those exposed to school stakeholders' involvement in defining the criteria of SSE. This finding lends credence to the postulation regarding the report of an end-term assessment of the QUIPS/ILP programme which indicated that the programme impacted positively on teaching and learning processes outcomes in primary schools throughout the country (Ghana Education Service/USAID, 2005). The QUIPS-fostered strong emphasis on teaching and learning processes in basic schools, in the form of preparation and use of comprehensive lesson notes, teaching learning materials, provision of immediate feedback to pupils among others, might have had a lasting impact on the quality of education in Ghana. However, participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER significantly performed better than the control group. Similarly, participants exposed to school stakeholders' involvement in defining the criteria for SSE exhibited higher performance in teaching and learning process indicators than those in the control group. The null hypothesis was, therefore, rejected.

The result supports the findings of Lockheed and Levin (1993); Velez et al. (1993); who argued for the existence of high quality teaching and learning process as a means of promoting effective schools in developing countries. Reynolds and Cuttance (1992); Sammons, Hillman and Mortimore (1994);

and Slavin (1995) have noted that a good school is more than a collection of good teachers, but their researches also increasingly emphasize that the teaching learning process is the one to which most attention should be paid.

The fifth hypothesis sought to find if a significant difference exists in post treatment scores on support for pupils' indicator among respondents exposed to the knowledge-based of Educational Effective Research (EER), School Stakeholders' Involvement in developing SSE mechanisms and the control group. The descriptive data and the two-way ANCOVA statistic in Tables 15 and 16 show that participants in the two experimental groups (those exposed to establishment of SSE mechanisms which are in line with the knowledge-base of EER and those exposed to school stakeholders' involvement in defining the criteria of SSE) significantly performed better on the supports for pupils' indicator than those in the control group. The results also show that no significant difference exists between teachers and students on the supports for pupils' indicator.

5.3.3.3. Post-hoc test

The post-hoc test comparisons done using the Fisher's Protected t-test, presented in Table 17, to determine which group differs from the other and the nature of the difference also showed that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated better performance in the supports for pupils' indicator than those exposed to school stakeholders' involvement in defining the

criteria of SSE. Also, participants exposed to school stakeholders' involvement in defining the criteria for SSE showed a higher performance in supports for pupils' indicators than those in the control group. The null hypothesis was, therefore, rejected.

This finding supports that of MacBeath, Boyd, Rand, and Bell, (1996) who found that all pupils at some time experience difficulties with learning which require support in different ways, at different times, and at different levels of intensity and that a school's ability to know and respond to that range of problems is a critical factor of a school's quality.

The findings of this study indicated that participants in the two experimental groups (those exposed to establishment of SSE mechanisms which are in line with the knowledge-base of EER and school stakeholders' involvement in defining the criteria of SSE) significantly exhibited higher performance on the Ethos (climate and relationships) indicator than those in the control group. The essential difference of the two approaches has to do with the fact that through the training initiatives, the two training schools have been encouraged to develop an ethos of achievement and to place greater emphasis on recognizing and celebrating the successes of their pupils.

The results also show that no significant difference exists between teachers and students on the ethos (climate and relationships) indicator.

The post-hoc test comparisons done using the Fisher's Protected t-test to determine which group differed from the other on the ethos (climate and relationships) indicator also showed that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated better performance in the climate and relationships indicator than those exposed to school stakeholders' involvement in defining the criteria of SSE. Similarly, participants exposed to school stakeholders' involvement in defining the criteria for SSE exhibited higher performance in the climate and relationships indicator than those in the control group. The null hypothesis was, therefore, rejected.

The result is in line with the findings of Heneveld (1994); Fuller and Clarke (1994), and Heneveld and Craig (1996) who listed school climate including; high expectations of students, positive teacher attitudes, order and discipline, reward and incentives; as one of the sixteen interrelated network of factors that influence student outcomes. The findings of this study is in consonance with the objectives of the QUIPS (2002) initiatives, through which schools have been encouraged to develop an ethos of achievement and to place greater emphasis on recognizing and celebrating the successes of their pupils.

The seventh finding of this study is that participants in the two experimental groups (those exposed to establishment of SSE mechanisms which are in line with the knowledge-base of EER and school stakeholders' involvement in

defining the criteria of SSE) significantly exhibited higher performance on the resources (accommodation and facilities) indicator than those in the control group. The results also showed that participants who were teachers demonstrated higher performance on the resources indicator than the student participants.

The post-hoc test comparisons done using the Fisher's Protected t-test to determine which group differed from the other on the resources indicator also showed that participants exposed to the establishment of SSE mechanisms which are in line with the knowledge-base of EER demonstrated better performance in the resources indicator than those exposed to school stakeholders' involvement in defining the criteria of SSE. Similarly, participants exposed to school stakeholders' involvement in defining the criteria for SSE exhibited higher performance in the resources indicator than those in the control group. The null hypothesis was, therefore, rejected.

This finding support that of The World Bank Primary Education Policy Paper (1990) and Boissiere (2004) who identified the determinants of primary education outcomes in developing countries to include hardware such as school building, classroom furniture, and sanitation. Similarly, White's (2004) case study in Ghana about the effects of hardware input on academic achievement documents some evidence of the strong and positive relationships between hardware inputs and student outcomes.

The results of the analysis also show that the participants exposed to school stakeholders' involvement in defining criteria of SSE mechanisms made the highest mean difference score on the management, leadership and quality assurance indicator followed by those exposed to SSE mechanisms which are in line with the knowledge-base of EER. The control group had the least mean difference score on the management, leadership and quality assurance indicator. The two-way ANCOVA statistic presented in Table 25 indicated that there is significant difference on the management, leadership and quality assurance indicator among the three groups. The results also showed that participants who were teachers demonstrated higher performance on the management, leadership and quality assurance indicator than the student participants.

A further analysis made using the Fisher's Protected t-test to determine which group differed from the other and the nature of the difference showed that participants exposed to the knowledge-base of EER do not significantly differ on management, leadership and quality assurance indicator from those exposed to school stakeholders' involvement in defining the criteria for SSE. The final evaluation of USAID / Ghana's Quality Improvement in Primary Schools (QUIPS) programme (2005) found that the positive impact of the management leadership and quality assurance activities during the QUIPS intervention activities were clear in the schools whether partnership or control. Further, the scaling up and the spread of QUIPS might have

influenced the practices of head teachers and teachers across districts and schools in the country. However, participants exposed to the knowledge-base of EER significantly demonstrated better performance than the control group. The participants exposed to school stakeholders' involvement in defining the criteria for SSE also exhibited significantly higher performance on management, leadership and quality assurance indicator than the control group. The null hypothesis is, therefore, rejected.

The findings were in agreement with Velez et al. (1993) who found out that management and leadership such as head teacher's and class teacher's exposure to in-service training and training facilities, years of experience, number of supervisory visit and number of services offered determine school effectiveness. MaeBeath, Meuret, & Schratz, (2009) revealed that school self evaluation is an indispensable task of education authorities and it serves important purposes which include pedagogical and managerial improvement in the schools. Harber (1993); Harber and Trafford (1999) on the values of democratic school management in developing countries (Africa in particular) towards improvement of school effectiveness hold that effective schools should be democratic.

5.2 Summary and Conclusion

In summary, this research examined the impact of school self-evaluation training on improvement of basic schools in Ghana. The choice of the seven SSE indicators, as the independent variables for the study, was informed

by the fact that these seven indicators capture the essential features of programmes for enterprise in education, and are thus considered most relevant to evaluating the impact of the school's self-evaluation. The indicators provide a toolkit for head teachers, teaching staff, pupils, parents and other stakeholders in education to use in evaluating the quality and effectiveness of their school. The research, therefore, directed the strategies involved in the seven quality indicators at two main approaches of establishing SSE mechanisms namely; knowledge-base of educational effectiveness research (EER), and Involvement of School Stakeholder in defining the criteria of SSE. This is against the background that improving the quality of education remains an important goal for many countries including Ghana, which has necessitated the introduction of many quality initiatives in the schools. Nonetheless, in many schools, the gains of these quality initiatives have not been sustained, in large part because the basic conditions that existed during such initiatives, especially quality professional practice in supervision, assessment and evaluation have not been maintained. Additionally, the sustainability of the skills developed in collecting and, most importantly, using data to inform management decisions is challenged by shifting district/school priorities and funding limitations.

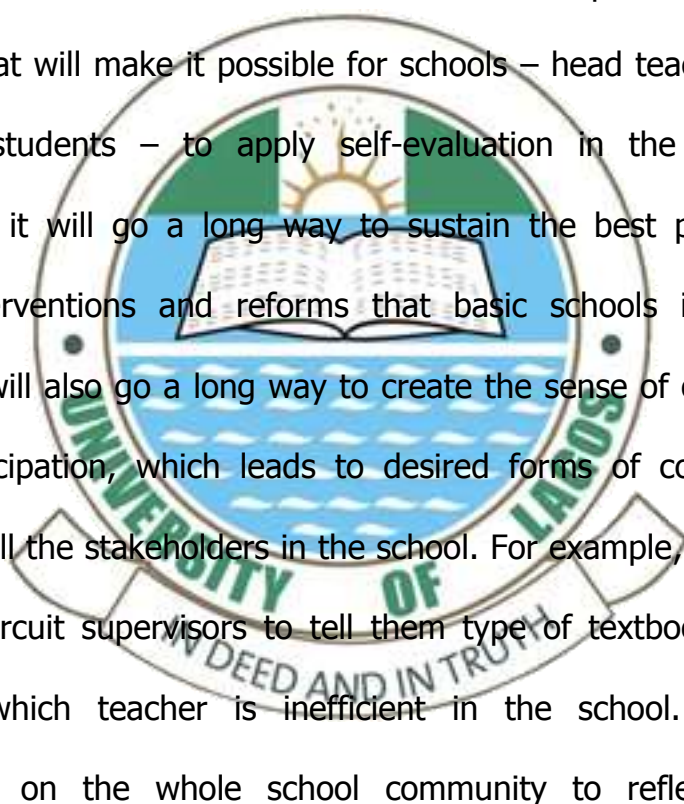
Ineffective head teacher support to, and supervision of teachers in basic schools is a great challenge to successful teaching and learning in public basic schools in Ghana. Most head teachers in the schools are not fully effective. Lack of visits by Circuit Supervisors and other district office staff

has derailed the gains of the quality improvement initiatives, thereby compounding the problems in Ghanaian basic schools. Schools are increasingly being asked to shoulder a greater proportion of the responsibility for developing and guaranteeing educational quality, which involves among other things, their being expected to engage in self-evaluation. In view of the above problems, a study to identify the extent of contribution to school improvement made by SSE as well as identifying which of the main approaches to establishing SSE mechanisms to be more effective became necessary. This study, therefore, sought to find out how trainings in the two different approaches to school self-evaluation could equip teachers and students to develop an in-built resilience to meet change, as well as the internal capacity and know-how to assess the strengths and weaknesses, and build its development planning on that solid foundation.

Beyond the fact that all two experimental groups (establishing SSE mechanisms which are in line with the knowledge-base of EER and the involvement of school stakeholders in defining the criteria of SSE) had better results than the control group, implying that SSE can contribute in establishing effective school improvement strategies, the establishment of SSE mechanisms which are in line with the knowledge-base of EER had the strongest impact. Establishing SSE mechanisms which are in line with the knowledge-base of EER is thus, the most effective way of establishing SSE on the structure of the curriculum, overall quality of attainment, support for pupils, ethos and the resources. The establishment of SSE mechanisms

which are in line with the knowledge-base of EER group did not differ significantly from those exposed to the involvement of school stakeholders in defining the criteria SSE on the teaching and learning processes as well as the management leadership and quality assurance indicators.

Through the findings it can be concluded that if school authorities – the district directorates, district education oversight committees (DEOC), SMCs/PTAs, head teachers and teachers – can present an enabling atmosphere that will make it possible for schools – head teachers, teachers, parents and students – to apply self-evaluation in the school setting systematically, it will go a long way to sustain the best practices of the numerous interventions and reforms that basic schools in Ghana have benefitted. It will also go a long way to create the sense of ownership, as a result of participation, which leads to desired forms of commitment and motivation of all the stakeholders in the school. For example, teachers would not wait for circuit supervisors to tell them type of textbooks, number of furniture or which teacher is inefficient in the school. Responsibility, therefore, lies on the whole school community to reflect on student outcomes and key improvement strategies, as well as focusing on what the school can do in the future to continue to improve.



5.3 Implications for Educational Practice

The issue of school evaluation is becoming more urgent and ever more complex issue in education that has challenged school administrators, teachers and students. Teachers and school staff in most cases argue that evaluation schemes, especially external evaluation, constrain their autonomy. They, therefore, oppose imposed evaluation schemes, especially when sanctions are at stake. The findings of this study provide empirical answers to some of the issues/challenges that stakeholders in Ghanaian Educational system have been encountering. Several educational implications could be derived from this study to improve educational practice in Ghanaian basic schools.

Firstly, the fact that all the two experimental groups had better results implies the two approaches to SSE (establishing SSE mechanisms which are in line with the knowledge-base of EER and the involvement of school stakeholders in defining the criteria of SSE) are effective. Basic schools in Ghana can, therefore, adopt these approaches to SSE in the schools as a means of ensuring quality in the country's educational provision. It will be more expedient to orientate teachers and students to these approaches through school-based in-service training programmes than to rely solely on circuit supervisors and other District Education Office (DEO) staff who are not regular in many cases.

The study demonstrated the effectiveness and usefulness in involving students in evaluating their own schools. It would, therefore, be ideal to train them in SSE practices so they could be involved especially in evaluating areas like school discipline, overall quality of attainment, teaching and learning, student leadership, and provision of basic needs to students by parents among others.

Furthermore, Regional and District directors of education, as well as head teachers, are encouraged to introduce SSE in the basic schools in Ghana to create the sense of ownership and relevance in the teachers, students, parents and the entire community. This is based on the logic that those who are closest to everyday practice are best placed to evaluate, develop and improve it. There is a growing conviction that empowerment of school-site actors (head teachers, teachers and pupils as well as parents and communities) is the way out to make schools responsive to their environment and to the needs of the society as a whole. It is expected that such empowerment will liberate enough initiative and creativity to allow schools to find solutions to their own problems than the standard ones designed by government.

Policy-makers have become aware that many of the basic problems that schools are facing can only be properly solved at school level. Too many programmes for quality improvement that have been initiated by the Ministry of Education could not stand the test of time. The Ministry of Education have

realized that quality improvement can not be imposed from outside. In the end it is the head teacher together with the teachers, who has to deliver the goods. Without such commitment, very little happens, and this commitment has to come from internal conviction. Consequently, it is the opinion of the researcher based on the study that schools should be encouraged and empowered to assure themselves the quality of the services that they have to deliver. School self-evaluation is, therefore, felt to be a more effective evaluation and improvement tool for the achievement of this commitment. School self-evaluation, like the continuous assessment system, could be incorporated into to the curriculum of the colleges, universities and faculties of education programmes so that prospective teachers would be equipped with the skills of practising it.

5.4 Recommendations

On the basis of the findings of this research, the following recommendations are made:

- (1) There should be National support for the introduction of school self-evaluation in the basic schools in Ghana. This support should consider the provision of teaching/learning materials and equipment for the effective implementation of SSE in the schools.
- (2) Schools – head teachers, teachers and pupils - should be trained in SSE. This is in consistence with the training of Key DEO staff of the DTST, as suggested by the national policy on Whole School

Evaluation. After receiving the training supervisors are expected to train school heads, teachers and students in order to equip them with the necessary knowledge.

- (3) School self-evaluation in basic schools should introduce quality indicators dealing with the basic needs of the individual schools.
- (4) Indicators should not be imposed on the schools from the district, regional or GES headquarters. Where the basic needs of a school are many, the self-evaluation team of the school should prioritize such indicators and track the pressing ones.
- (5) Schools should strive to create a safe environment where SSE can take place. The creation of a climate conducive to improved effectiveness is seen as essential for schools attempting to introduce SSE. Such climate characterized by openness, collaboration, transparency and trust is ideal for effective SSE since all the stakeholders will be encouraged to participate fully.
- (6) There is the use of data in SSE. It is, therefore, recommended that data collected from SSE are not expected to be used to attach blame to any individual, since SSE is evaluation focused on the collectivity not the individual. Data collected should be used to influence decision making for school improvement.

5.5 Contributions to Knowledge

1. The study has demonstrated that the establishment of School Self-evaluation mechanisms which are in line with the knowledge-base of Educational Effectiveness Research (EER) and the school stakeholders' involvement in defining the criteria of SSE as effective approaches to school self-evaluation in Ghanaian basic schools. The essential difference of the two approaches has to do with the fact that a specific theoretical framework guided the design of the SSE mechanisms. Moreover, the schools of this experimental group were asked to develop their improvement strategies and action plans by taking into account the evidence of EER which show how the functioning of the relevant factors could be improved.
2. The study has also confirmed that the involvements of school stakeholders (teachers and students) in defining the criteria of SSE encourage their active participation to use SSE for improvement purposes. There is a growing conviction that empowerment of school-site actors (head teachers, teachers and pupils as well as parents and communities) is the way out to make schools responsive to their environment and to the needs of the society as a whole. It is expected that the empowerment of these school-site actors will liberate enough initiative and creativity to allow schools to find solutions to their own problems than the standard ones designed by government.

3. The study has indicated that the establishment of SSE mechanisms which are in line with the knowledge-base of EER was more effective in the structure of the curriculum indicator than school stakeholders' involvement in defining the criteria of SSE. This finding will be of immense help to school administrators.
4. The study has ascertained that the effects of the establishment of SSE mechanisms which are in line with the knowledge-base of EER and the school stakeholders' involvement in defining the criteria of SSE are similar for both teaching and learning process and the management, leadership and quality assurance indicators.
5. The study has provided useful school self-evaluation instruments, which has not been in use all the while, to be used in basic schools by students, teachers, head teachers, circuit supervisors, district and regional directors of education.
6. The study provided a useful empirical data concerning the performance of teachers and students on the two approaches to self-evaluation. This would be of immense help to school managers, head teachers and circuit supervisors.
7. The study has revealed the effectiveness of both teachers and students in evaluating their own school. That the two groups did not differ significantly on six out of the eight indicators has shown that the over-

reliance on external assessors and teachers for school evaluation needs to be changed.

8. The study has shown that there is a motivation factor on any school self-evaluation practices, schools will, therefore, be very happy in evaluating their own activities.

5.6 Suggestions for further Studies

The following suggestions are made as a result of the findings emanating from this study.

- (1) The study is only limited to the basic schools in the Sunyani Municipality in the Brong Ahafo Region of Ghana. Future researchers should, therefore, endeavour to replicate the study in all the other regions of the country for easy generalization of the findings.
- (2) The study could be replicated in the second cycle schools in the country.
- (3) From the methodology point of view, it is recommended that the potential use of qualitative research methodology in the investigation of issues in school self-evaluation in basic schools be further developed. The qualitative research method seems particularly appropriate for the discovery of important areas or themes in education because it allows informants the opportunity to define the topics and questions to be pursued in research projects.

- (4) Lack of research in the area of school self-evaluation in the basic schools in Ghana highlight the significant of this study. The research also attempted to investigate the impact of SSE on school improvement in basic schools. However, many aspects of SSE in basic schools require more detailed research, such as;
- (a) The different perceptions of stakeholders in education on SSE
 - (b) SSE as an effective quality assurance tool in basic schools in Ghana
 - (c) Strategies to improve SSE in basic schools
 - (d) The management of SSE by head teachers in basic schools
 - (e) The role of school authorities – district director of education, SMC, head teachers etc in preparing teachers and pupils with SSE
- (5) Further research could be carried out comparing the SSE and the external evaluation in the basic schools.

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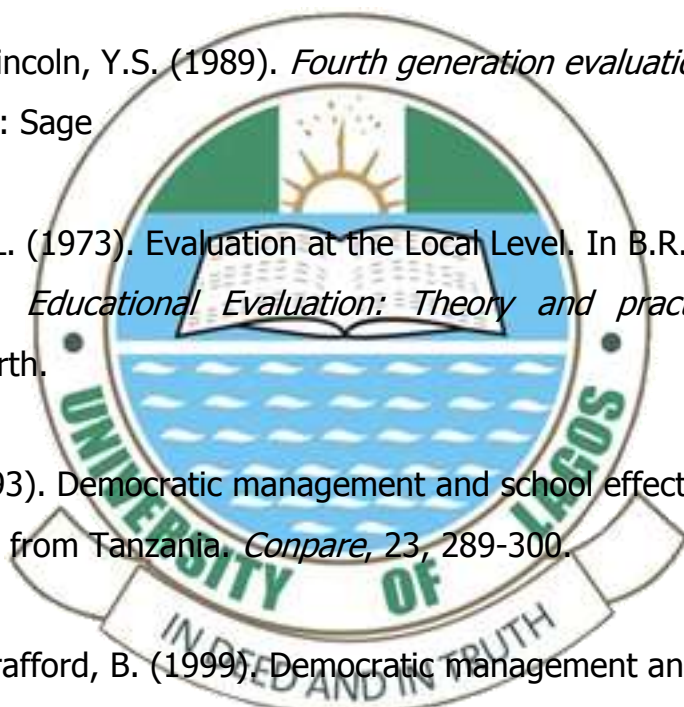
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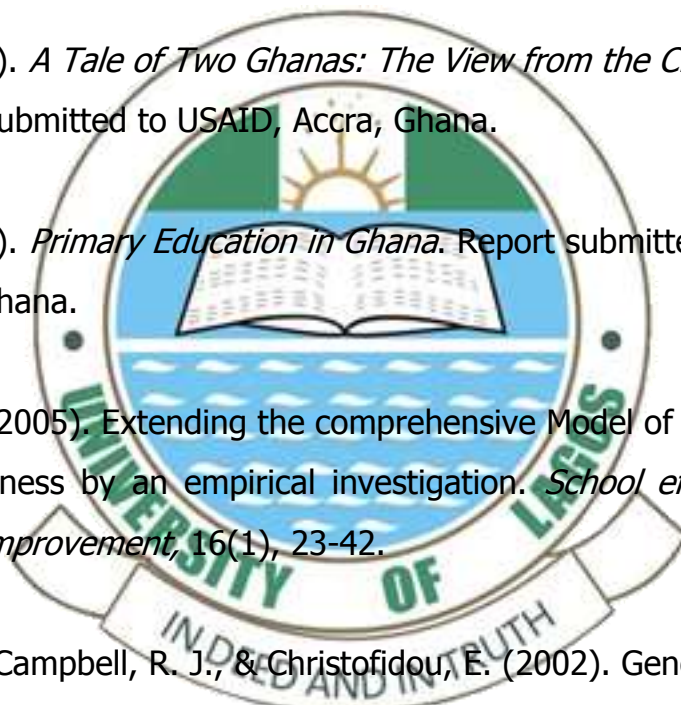
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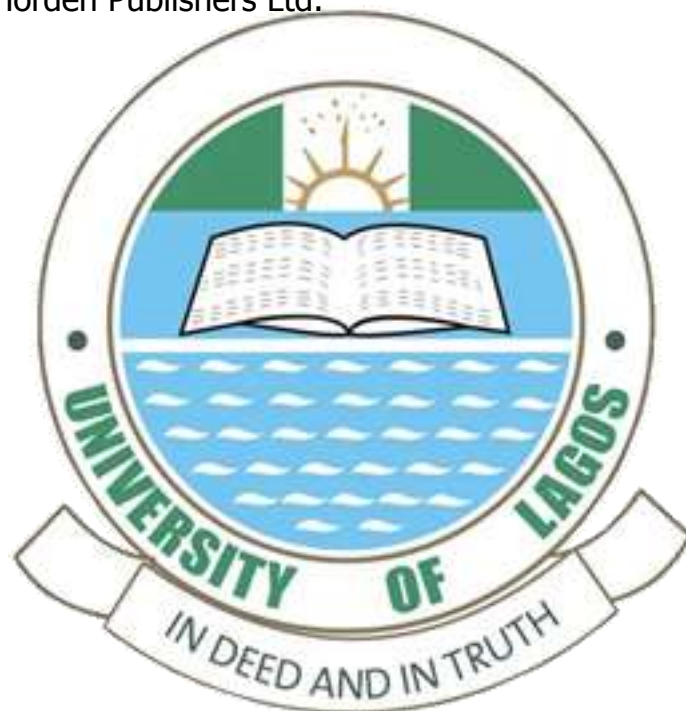
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APPENDIX I

QUESTIONNAIRE ON INSTITUTIONAL SELF-EVALUATION

The following statements show how the school evaluates itself under various themes/quality indicators. Indicate the extent to which your school meets/evaluates the identified themes against the six levels of performance which are integral parts of each quality indicator. Your responses will be treated confidentially, anonymously and used for research purposes only

Level	Rating	Interpretation
Level 6	<i>excellent</i>	- excellent
Level 5	<i>very good</i>	- major strengths
Level 4	<i>good</i>	- important strengths with areas for improvement
Level 3	<i>adequate</i>	- strengths just outweigh weakness
Level 2	<i>weak</i>	- important weakness
Level 1	<i>unsatisfactory</i>	- major weakness

Name:

School:

Class:

No.	Theme(s) under which indicator is defined	6	5	4	3	2	1
	My school evaluates:						
	CURRICULUM						
1	Breadth and balance across elements of the curriculum						
2	Effective integration of knowledge, skills and understanding of the curriculum						
3	Timetabling and arrangement for pupil choice						
4	The extent at which courses or programmes have breadth and balance between the various elements/content areas						
5	The extent at which the various elements of the courses or programmes are planned and taught in an appropriate sequence to meet the range of needs, abilities and aspirations of pupils.						
6	Support and guidance for teachers						

		6	5	4	3	2	1
ATTAINMENT							
7	The school's progress in raising attainment						
8	Pupils' progress in learning						
9	Pupils attainment in relation to national examinations						
10	Evaluations across other related quality indicators						
TEACHING AND LEARNING							
11	Planning of programmes and day-to-day activities						
12	Range and appropriateness of teaching approaches						
13	Teacher-pupil interactions during teaching						
14	Clarity and purposefulness of questioning						
15	Extent to which the learning environment stimulates and motivates pupils						
16	Interaction with others						
17	Choice of tasks, activities and resources / Tasks and activities are very matched to the needs of individual pupils						
18	Provision for pupils with differing abilities and aptitudes						
19	Assessment methods and arrangements for recording						
20	Judgements made in the course of teaching						
21	Use of assessment information						
22	Reporting procedures						
23	Information given to parents about each pupils' progress						
24	Responsiveness of the school to parents' views and enquiries about their child's progress						
SUPPORT FOR PUPILS							
25	Arrangements for ensuring the care, welfare and protection of pupils						
26	Pupils' progress in developing positive attitudes and personal and social skills						
27	Contributions of extra-curricular and other activities						
28	Preparation for choice in education at key stages (e.g. JHS 2 to JHS 3) involves a wide range of						

	well-targeted approaches e.g. self-assessment of abilities and interests, a very good information and advice about courses and careers etc.						
29	The monitoring processes in the school						
30	Profile of pupils' progress and development						
31	Arrangements for using acquired information						
32	Programmes to support pupils' learning						
33	Pupils progress and attainment						
34	Implementation of the roles of learning support						
35	Processes for placements of pupils with special educational needs and disabilities into provision						
36	Processes for placements of pupils with special educational needs and disabilities into classes						
37	Links with local authority or other managing body						
38	Links with other educational establishments						
39	Links with voluntary organisations, the wider community and employers						
ETHOS (CLIMATE AND RELATIONSHIPS)							
40	Sense of identity and pride in the school						
41	Reception and atmosphere						
42	Pupil and staff morale						
43	Pupil behaviour and discipline						
44	Pupil and staff expectations and use of praise						
45	Promoting an ethos of achievement						
46	Sense of equality, quality and fairness						
47	Encouragements to parents to be involved in their child's learning and the life of the school						
48	Information given to parents about the work of the school						
49	Link between the school and the School Board						
50	The school's role in the local community						
RESOURCES							
51	Sufficiency range and appropriateness of accommodation						
52	Arrangement to ensure health and safety e.g. playgrounds						
53	Sufficiency of available finance						
54	Organisation and accessibility of resources						
55	Use of resources						

		6	5	4	3	2	1
56	Provision of staff						
57	Experience, qualification, and expertise of staff						
58	Effectiveness of teachers and teamwork						
59	Formation of classes and deployment of teachers						
60	Links between staff review and development and school self-evaluation and planning						
61	Staff development						
62	Understanding of school funding mechanisms						
63	Arrangements for managing the school's budget						
64	Use of finance in support of school planning and learning and teaching						
MANAGEMENT, LEADERSHIP AND QUALITY ASSURANCE							
65	Clarity and appropriateness of aims of school						
66	Effectiveness of procedures for formulating policy						
67	Monitoring and evaluation by promoted staff						
68	Reporting on standards and quality						
69	The development plan of the school						
70	Action planning						
71	Leadership qualities						
72	Professional competence and commitment						
73	Relationships with people and development of teamwork						
74	Effectiveness and deployment of staff with additional responsibilities						

Appendix II

DEPARTMENT OF EDUCATIONAL FOUNDATIONS
(WITH EDUCATIONAL PSYCHOLOGY)
FACULTY OF EDUCATION
UNIVERSITY OF LAGOS, NIGERIA

Head of Department

Prof. (Mrs.) Ayoka Mopelola Olusakin
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28th June, 2011

TO WHOM IT MAY CONCERN

This is to certify that **ASAMOA-GYIMAH , KENNETH** with **Matric. No. 089034086** is a current student in the Department of **Educational Foundations**. He is studying for **Ph. D in Measurement and Evaluation**.

Please give necessary assistance.

Thank you.

HEAD
DEPT. OF EDUCATIONAL FOUNDATION
UNIVERSITY OF LAGOS

Prof. (Mrs.) A.M. Olusakin