

**SOCIO-ECONOMIC FACTORS INFLUENCING TEACHERS'
EFFECTIVENESS IN PRODUCTIVITY IN PUBLIC
PRIMARY SCHOOLS IN GATURI DIVISION,
MURANG'A COUNTY, KENYA**

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DECLARATION

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

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DEDICATION

I dedicate this work to God who is all in my life. It is also dedicated to my loving wife Rose Wanjiku for her unstinted support and encouragement through my studies in the master's level, to our dear children, Mark, Vick and Allan.

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LIST OF ABBREVIATIONS AND ACRONYMS

DEO	District Education Officer
MOE	Ministry of Education
MOEST	Ministry of Education Science and Technology
SPSS	Statistical Package for Social Sciences
TSC	Teachers Service Commission
UNESCO	United Nations Educational, Scientific and Cultural Organization

ABSTRACT

The study sought to find out the social economic factors influencing teachers effectiveness in productivity in Gatari Division, Murang'a County, Kenya. The objectives that guided the study were remuneration, school facilities, headteachers levels of training in financial management and class sizes. The target population for the study was the headteachers and teachers in all primary schools in the Gatari division and the District Quality Assurance and Standards Officer. They were all two hundred and seventy one in number. The simple random sampling method was used to pick the teacher and the head teacher population. The sample size for the teachers and head teachers was fifty percent of the population. One hundred and twenty teachers, fifteen headteachers and one Quality Assurance and Standards Officer were included in the sample size.

The study employed the descriptive survey design. Data was collected by use of questionnaires and interview schedules. Data was analyzed using descriptive statistics and inferential statistics and thereafter presented by use of statistical means. The results were subjected to statistical tests which entailed chi-square tests and spearman rank correlation order tests. The study found out that the teachers considered their remuneration levels as inadequate and an impediment to their effectiveness in productivity. The teachers equally viewed the school facilities as not upto the standards of ensuring their optimum productivity. The headteachers training in financial management was deemed as very inadequate by the teachers thus a factor which greatly hindered their effectiveness in productivity. The class sizes in the division were considered as large by all the respondents. They argued that the class sizes stretched the teachers' capacities to the maximum and greatly curtailed them in terms of the capacity to be effective by way of giving individual attention to the pupils.

The study thus concluded that teachers' effectiveness in productivity was impaired and affected by the remuneration levels, the school facilities, the headteachers' training and the large classes which hindered the capacity of the teachers to be effective in terms of delivering their professional obligations and mandates to the letter.

The study recommended that the teachers emoluments and salaries should be reviewed and more innovative approaches geared towards enhancing their effectiveness in productivity should be employed like putting in place performance tokens for high achievers. The study recommended the involvement of private sector participation in facilities upgrade to ensure inadequacies and shortfalls were met. The headteachers should be confirmed to the positions only after undertaking a mandatory training on financial management and get subjected to continuous learning by way of refresher courses. The class sizes should be taken care of by way of the exchequer meeting staffing shortfalls and facilities inadequacies to ensure that the pupils get value from the education systems.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Teachers as well as schools make a difference is a finding that has received increasing support from educational research over the past decades (Askew, Rhodes, Brown, William & Johnson, 1997). Studies using large databases and multilevel modeling techniques have consistently found that teacher effectiveness influence students' achievement and is of the main influences on student progress over time (Muijs & Reynolds, 2000).

Principals and teachers' work performance and effectiveness are determined by effective teaching measured by his students' academic performance in examinations, punctuality at school and class, giving extra lessons to students and contribution to the progress of the school through participation in co-curricular activities such as sports, students' discipline and committee assignments as may be given by the principal (Staiger & Rockoff, 2010). Since principals are mainly concerned with achieving results, they want to work with and through teachers who are cooperative, responsible and productive (Moore & Esselman, 1992). However, research shows that there are factors which may affect teachers preventing them from having optimum effectiveness (Coombe, 2002). These include teachers' behaviours, self efficacy and beliefs, subject knowledge and attitude, working conditions, government policy, socio-political factors, workload, organizational factors and cultural factors.

In America Machin and McNally (2008) noted that teachers are a central actor in the learning process that takes place in schools, and teachers' productivity and effectiveness can vary depending on the incentives they face. Pay structure is potentially an important incentive-tool in the hands of the education policy maker and merit pay proposals have recently been discussed in several countries and applied in some. Advocates of intensified teacher assessment assert that current practices leave too many incompetent or ineffective teachers in place. But many schools suffer from the opposite problem: high teacher turnover that reduces gains from experience and increases the costs of personnel management. As Machin and McNally (2008) pointed out, about 40 percent of teachers in New York City quit after three years. Teaching is an increasingly demanding job. Yet its average weekly pay has declined in recent years compared with the pay of other college graduates. Sweeping budget cuts have led to layoffs and worsened working conditions. Teachers in some school districts in Texas are now assigned janitorial work.

Teacher ineffectiveness has been closely linked with their attitudes and perceptions about the job. In the United States of America, there have been cases of chronically ineffective teachers owing to self efficacy issues which impaired their confidence levels (Chait, 2010). The chronically ineffective teachers are a challenge to the education sector and the labour laws pose a challenge to their removal from the system as performance based reviews are rare in the lower grades of academic spheres. Teacher compensation has always been aligned and related to effectiveness but the chronic ineffectiveness has always persisted in the affected teachers even after the review of the compensation rates.

Teacher compensation has been confirmed as great motivating factor to the support and reinforcement of attributes geared towards improved teacher performance. Compensation has been identified as the foremost attraction of many teachers to the job (Jerald , 2009). Feelings of affection to the tasks at hand and the realization that compensation matches ones output always motivate teachers to strive and realize the expected performance, creates a sense of diligence and enhances efficiency at work. Situations whereby the teacher feels like they are juggling many balls at the same time in terms of handling many class activities and other responsibilities not in tandem with the compensation levels makes him de-motivated and inefficient at work.

Concerns about educator turnover and attrition are reported widely as a global phenomenon (Gurney, 2007). In Britain, educator attrition is reported as a national crisis. Santiago (2001) reported that the situation has worsened in Sweden, Germany and New Zealand. In the USA, teacher shortages as a result of turnover are widely reported in many states (Markley, 2001). The Canadian Teachers' Federation (1999) reports on teacher shortages resultant from teacher attrition in Ontario and Australia. The main reason for teacher attrition is the remuneration. Muijs and Reynolds (2000) noted that increased teacher turnover leads to large class sizes thus overburdening of the remaining teachers affecting their productivity.

In most African countries, the phenomenon of teacher turnover is associated mainly with the HIV/AIDS epidemic, especially in sub- Saharan countries like Zambia, Kenya, Nigeria, the Central African Republic and South Africa (Coombe, 2002). The President of the Gambian Teachers' Union reports a massive exit of teachers from the profession due to, amongst other economic conditions: a lack of adequate salaries, allowances, housing and promotion (Kamara, 2002). Teacher effectiveness in these regions is mainly affected by the school management, inadequacy of resources and

overload of teachers especially after Free Primary Education. Mukumbira (2001) reported that Zimbabwe lost about 2 000 newly-qualified teachers who may have left for greener pastures in 2000. The main reason for the same was teacher salaries.

In Kenya, given that the government had frozen supply-driven teacher recruitment in 1997 and resorted to replacing only those lost under natural attrition in 2001, teacher shortage has worsened with increase in student enrolment as a result of the Free Primary Education (UNESCO, 2003). UNESCO (2005) cites an ageing teaching workforce and the possible retirement thereof, low salaries and demands for even more complex teaching abilities. Such factors have affected the effectiveness of the teachers. Duffrin (1999) cites working conditions as reason for high turnover especially among teachers leaving within the first five years of being in the profession. Chaika (2002) advocates the inadequate school facilities, poor working conditions, poor school management and a growing salary gap between teachers and other college graduates as sources of teacher ineffectiveness. Borsuk (2001) noted that when the teachers who are left are too few, they get too much on their hands thus affecting their productivity and effectiveness.

In Murang'a, academic performance in primary schools has been deteriorating over the years and there is a downward trend in academic performance since 2009 (D.E.O., 2013). Compared to the other divisions in Murang'a, Gatari division has the greatest downward trend academically. Effective teachers produce results and this is not the case in Gatari Division. The issue of teacher effectiveness has occupied educational research for several decades, with researchers looking at such factors as school factors, environmental factors, motivational factors and cultural factors (Chaika, 2000; Eshitemi2005; Irumbi, 1990; Kamara, 2002; Kirembu, 1991; Matovu, 2001).

Hence this study will focus on the socio-economic factors influencing teachers' effectiveness in productivity particularly in Gaturi Division, Murang'a County.

1.2 Statement of the problem

Ineffectiveness among teachers may lead to poor academic performance among learners. Darling-Hammond (2000) noted that teachers' effectiveness is normally at different levels due to various reasons. Mukumbira's (2001) survey reveals that in the developing world, teachers' salaries are generally low and below the poverty datum line or cost of living. Conditions of service are also poor and many schools do not have accommodation, or adequate accommodation for teachers (Mukumbira, 2001). The situation is even worse for unqualified teachers, most of who earn between 40 and 60% of the salary of the lowest paid qualified teacher.

The low salaries and poor conditions of service have contributed to ineffectiveness among teachers and the high level of brain drain. Kamara (2002) explained that such factors are making teachers leave their profession as they seek for greener pastures due to the harsh economic conditions. The teachers who are left are overburdened due to large class sizes especially with Free Primary Education. This affects their effectiveness. In addition, head teachers' support in terms of availing resources and facilities may affect the way teachers perform. Research consistently shows that teacher effectiveness is a powerful determinant of student achievement gains. It is therefore imperative to carry out a study on the socio-economic factors influencing teachers' effectiveness in productivity in Gaturi Division, Murang'a County.

1.3 Purpose of the study

The purpose of this study is to investigate the socio-economic factors influencing teachers' effectiveness in productivity in Gatari Division, Murang'a County.

1.4 Objectives of the study

- i) To determine how remuneration affects the effectiveness of teachers in primary schools
- ii) To establish which school facilities affect the effectiveness of teachers in primary schools
- iii) To assess the extent to which the level of training of head teachers in financial management affect effectiveness of teachers in primary schools
- iv) To determine how class size affects the effectiveness of teachers in primary schools

1.5 Research questions

- i) How does remuneration affect the effectiveness of teachers in primary schools?
- ii) Which school facilities affect the effectiveness of teachers in primary schools?
- iii) To what extent does the level of training of head teachers in financial management affect effectiveness of teachers in primary schools?
- iv) How does class size affect the effectiveness of teachers in primary schools?

1.6 Significance of the study

The study may add on to the knowledge on the factors influencing teacher effectiveness from the results of the study. As a result, the Ministry of Education, TSC and BOG might get to learn other factors which affect teacher effectiveness and hence work to improve on them. This may aid shape the policy formulation activities for the good of the education sector at large.

The head teachers would understand more on where their teachers' ineffectiveness comes from and this would set the base for what they can do in order to help the teachers and hence improve their effectiveness. Teachers might be reminded of factors which lower their effectiveness and suggest what they wish should be done in order to increase their effectiveness. This may ultimately impact positively on the learner's performance and raise the academic standards.

The learners might also benefit from the study since teaching would be improved once teachers improve their own effectiveness. Other interested researchers might use this work for further research.

1.7 Limitations of the study

It was impossible to control the attitudes of the respondents. However, the researcher assured the respondents that anonymity would be used to conceal their identity. The researcher also explained to the respondents the importance of carrying out the study in order to change their attitude towards the study. This increased the acceptance of the study and response rates.

1.8 Delimitations of the study

The study was carried out in Gaturi Division, Murang'a County. It was also limited to public primary schools because the education in public schools was more standardized compared to private schools. The study had a focus on the teachers, head teachers and the District Assurance Officer as the respondents.

1.9 Assumptions of the study

The study was carried out on the premise that the respondents were willing to participate in the study and that the data given by the respondents was corrected and accurate for this study. It was also assumed that the sample would fully represent the target population of the study.

1.10 Definition of significant terms

Class size refers to the number of pupils in relation to the number of teachers and the resources available.

Economic conditions: can be considered the economic characteristics that describe the state of an economy.

Effectiveness: teacher performance indicated by students' performance

Efficiency is the comparison of what teachers actually produce with what they can achieve with the same consumption of resources (money, time and labour)

Productivity: refers to the quality of teachers in being fruitful and giving expected outcome

Salary: amount of money paid to teachers by their employer

Socio-economic factors refer to the societal and monetary issues which may affect the way a teacher delivers when teaching

Teacher shortage: A situation in which teachers needed cannot be obtained in sufficient numbers

1.11 Organization of the study

This study is organized in five chapters. The first chapter: introduction covers background to the study, problem statement, objectives, research questions, significance, limitations, delimitations, assumptions and definition of terms. The second chapter reviews the past literature regarding this topic. It is composed of the past literature on factors influencing teacher productivity, theoretical framework, conceptual framework and a summary of the chapter. In the third chapter, the research design to be used is highlighted. It also outlines the target population, sample size and sampling procedure, data collection instruments, validity and reliability, data analysis and research ethics. Chapter four covers data analysis, interpretation and presentation and summary. Chapter five is composed of summary, discussion, conclusion, recommendations and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section covers past literature on socio-economic factors influencing teachers' effectiveness in productivity. It equally covers the theoretical framework and conceptual framework and shows the gaps to be filled by the study.

2.2 Effect of teachers' remuneration on teachers' effectiveness in primary schools

Effective teachers are those who achieve the goals which they set for themselves or which have been set for them by others such as ministries of education, legislators and other government officials and school administrators. Effective teachers must possess the knowledge and skills needed to attain the goals, and must be able to use that knowledge and those skills appropriately if these goals are to be achieved (Borich, 1992).

Teacher remuneration is the salaries and benefits offered to teachers for their teaching work. Changes in teacher pay are likely to affect education quality through two mechanisms: by influencing the efficiency of the school and by affecting teacher quality (Loeb, Susanna & Page, 2000). Their intuition suggested that higher teacher pay may improve the efficiency of schools by reducing teacher turnover. Kingdon (1996) in a study in America suggests that teacher turnover can have a disruptive impact on student achievement by diverting district resources to the hiring process, weakening teacher collaboration, and eroding the bond or level of trust between students and teachers. He noted that increases in teacher salary could have an

immediate negative impact on teacher turnover, thereby increasing a school's efficiency.

Rivkin, Hanushek and Kain (2005) noted that Australia has a lot of respect for its teachers, and it shows. Teachers are compensated quite well for their work, and the government has established a number of programs to help them continually improve and grow on the job. Resultantly, teachers often work collaboratively and are very effective. Clotfelter, Ladd and Vigdor (2006) added that while there are many ways to improve teacher effectiveness, one popular strategy is to raise teacher salaries. This is as evidenced by a study on the same in California which showed that raising teacher salaries make difficult positions more attractive by providing a compensating differential for characteristics of the job that may be less desirable (Strunk & Zeehandelaar, 2011).

Hanushek and Rivkin (2010) in a study in South Africa on the relationship between teacher salaries and student achievement noted that that out of 118 estimates, only 20% were positive and significant, 7% were negative and significant and 73% were insignificant. Another strand of literature has had success in establishing indirect links between teacher pay and student outcomes. For example Ronfeldt, Lankford, Loeb and Wyckoff (2011) evidence suggest that higher teacher pay can reduce teacher turnover, increase teacher effectiveness which can improve student outcomes.

Relatively low wages (especially considering the number of years of higher education that the average, state certified teacher has completed) are frequently cited as a cause of teacher attrition. For example, Matovu's (2001) survey on teachers who were considering leaving the profession in Uganda ranked "salary considerations" as the most important factor driving their decision. Similarly, Ariko (2009) found that

compensation is the most important influence on the decision to remain in the profession for male teachers and experienced female teachers in Suba district, Kenya.

A survey by Manpower Services (2011) attributed low levels of job satisfaction in the Kenyan teachers to the perceived low salaries paid to them in comparison to the other public sector workers. This may be a pointer to the high incidences of industrial action and unrest in the teaching fraternity. The perception of a skewed remuneration structure which does not favor the teachers in comparison to the other public sector workers caused many teachers to either leave the service before the attainment of their retirement ages or have a lackluster performance at work.

2.3 Effect of school facilities on teachers' effectiveness in primary schools

School facilities are the libraries, text books, chalk boards, pens and any other item which make the teaching-learning process possible and easier. Ingersoll (2001) claims that a good teacher can teach anywhere and that a willing student is capable of learning in spite of the setting. There may be some truth to that. The issue is, however, whether teachers teach as well or students learn as much as they could have in better surroundings. It is simply a fact that the school environment itself has a largely untapped potential as an active contributor to the learning process. In each society there are facilities other than classrooms that can contribute in no small measure to teaching and learning process. For learning to take place learners must have access to necessary information materials and resources. They have to interact with tangible and intangible resources and institutions to ensure some levels of performance.

Gurney (2007) noted that in London, successful teaching and learning takes place in school buildings that are clean, quiet, safe, comfortable, and healthy. Buildings that are not properly maintained have the potential to inhibit student success due to one or more deficiencies in the facility. Lack of school facilities can impede teacher effectiveness and student success. Schneider (2003) noted that the quality of facilities has more of an effect on factors such as student attitudes toward school, self-esteem, security, comfort, and pro-social behaviour, which in turn affect learning and achievement. The above information shows a very close relationship between the physical environment and how well students and teachers perform in that environment.

Mulkeen (2005) is of the opinion that the lack of resources in a school also contributes to teacher job ineffectiveness. Mulkeen (2005) noted that a large percentage of new teachers in the Ghana study said they did not have access to adequate basic supplies. Most teachers had to use their own money to equip their classroom. Of the teachers interviewed, 26 percent report spending \$300 to \$1000 of their own funds on classroom supplies over the year, 14 percent spent \$100 to \$200, and 12 percent \$50 to \$75. In addition to this, most teachers report that they do not have enough textbooks or that the textbooks they do have are in poor condition. In turn, photocopying materials becomes a considerable part of their tasks, but school copy machines are frequently broken, and teachers have to rely on family, friends, or other private resources to reproduce the materials (Mulkeen, 2005).

Myriad factors clearly affect teacher effectiveness but most teaching takes place in a specific physical location (a school building) and the quality of that location can affect the ability of teachers to teach, teacher morale, and the very health and safety of teachers (Muijs & Reynolds, 2005). Despite the importance of the condition of school

buildings, serious deficiencies have been well documented, particularly in public schools. Many factors contribute to the quality of the school building and, in turn, affect the quality of teacher life and educational outcomes (Muijs & Reynolds, 2005).

In a comparative study in Uganda, Zambia and Nigeria Rothstein (2010) found great variations in the resources and facilities available for the teaching and learning of all subjects. Although all schools in the study were government schools, sitting for the same national examinations within a country; and depended on their governments for the bulk of their finances, some of these schools were so impoverished, they did not have the basic necessities, such as sufficient classrooms, offices, desks, textbooks, functional toilets, not to mention facilities like laboratories, libraries, workshops, chemicals, science equipment or apparatus. This affected the teacher effectiveness in teaching as well as learners' achievement.

Studies by Ogari (2011) found out that in instances of the under development of school facilities there were high incidences of teacher attrition attributed to demotivation. This was a great factor which demoralized teachers and caused them to leave the service in pursuit of better employment opportunities. The study found out that the advent of new ministries and related public and private bodies had seen many teachers leave the profession and a closer enquiry showed that majority of them taught in rural schools which were ill equipped thus the co- relation between lack of facilities and dissatisfaction leading to high attrition rates.

2.4 Influence of head teachers' training in financial management on teachers' effectiveness in primary schools

Evidence suggests that schools can save up to 5% of the average school budget through more efficient financial management (Clarke 2007). Similarly, Joubert and

Bray (2007) describe a school's financial management as the performance of management actions connected with the financial aspects of a school for the achievement of effective education. The common factor in these definitions of financial management is that a connection is made between the management tasks and the financial aspects of a school. The implication is that the management of school finances involves the task of planning (budgeting), organising (coordinating), leading (communicating and motivating), as well as controlling (auditing) (Clarke 2007). The above authors are also in accord that a school's financial management is imperative because it enables the school to achieve effective education.

Adegbemile (2011) noted that the success of any school programme depends very much on the way of the financial inputs are managed. Adegbemile (2011) added that central purpose of the financial management is the raising of fund and ensuring that the funds so mobilized are utilized in the most effective and efficient manner. He further suggested that the way finances are managed in a school determine the effectiveness of teachers and subordinate staff as well as learners' achievements.

In America, Davies and Ellison's (2003) study revealed that all the financial management skills are needed by the principals for effective schools' administration. The findings of the study further showed that majority of the principals were trained in financial management and as a result, they availed resources when teachers needed them improving their productivity and effectiveness.

In South Africa, Bisschoff and Mestry (2004) noted that it was the opinions of the principals that the financial management skills needed by principals for effective schools' administration are: prioritizing financial allocation according to needs, ensuring that budgets reflects agreed goals and objectives, delegating the mechanism

of financial matters to capable staff, keeping close check on financial matters delegated to staff, working within the constraints of the school budget, planning and sourcing for funds for school development, keeping accurate financial information about the school and giving true and fair view of financial position of the school. Resultantly, principals are given refresher courses on financial management and this has improved their skills in the same helping teachers to perform better. These findings ought to be so, because such financial management skills are needed by the school principals to make them effective in planning, sourcing and utilization of school funds.

In Lesotho, Mosoeunyane (1999) noted that principals are appointed on the basis of their teaching experience, as well as their academic and professional qualifications. Training in or even having a working knowledge of financial management is not considered a prerequisite for appointment to the position of principal. Consequently, principals in Lesotho often lack the necessary management skills and specifically financial management skills. Mosoeunyane (1999) further noted that as a result, students were given poor quality food and there was lack of maintenance of buildings and facilities such as printing machines because the school's finances were not properly managed. This led to poor performance of teachers and students. In some districts in Lesotho, it led to school strikes. This highlights the need for skills in financial management by head teachers.

The situation is not different in Kenyan schools. Baraka (2012) on a study on challenges facing public secondary school principals in financial management in Kitui district noted that principals have hardly any formal managerial and leadership training and most of them are appointed on the basis of their teaching record other than their leadership potentials. Despite their poor managerial and leadership training,

principals often work in poorly equipped public secondary schools with inadequately trained subordinate staff in the finance department (Bursars/Accounts Clerks). In addition the principals had not received any induction training course(s) on financial matters after they were appointed. This led to very poor skills in financial management which reduced the support principals could give to teachers.

Wanjau (2008) also noted that the teachers did not see enough financial support from the principal when there was need for it. He attributed this to inadequate financial skills among the head teachers. This concurs with previous works by Simatwa (2012) who argued that the head teachers had an immense obligation to fulfill the requirements of an office that they were least suited for attributed to lack of adequate managerial skills occasioned by lack of the requisite training. This exposed the institutions to the risk of inept management of resources.

2.5 Effect of class size on teachers' effectiveness in primary schools

A teacher to student ratio of 1:40 is acceptable but in some schools in the developing world, the ratio is 1:70 or even higher (Krueger, 2000). Angrist & Lavy (1999) found specific effects in the classroom associated with reducing class size in New York. The most obvious result is that teachers are more apt to individualize their instruction to fit the needs of their students. Through one-on-one tutoring, small-group learning and total class teaching, individual student understanding and input are elicited, critiqued and corrected or extended. The content taught is largely the same, but the teaching techniques vary for each student.

This increased use of individualization in reduced-size classes is possible because teachers can spend more time on students and less on disciplinary issues, have greater knowledge of their students, and feel more enthusiastic about their work hence

become more effective (Ballou, 2001). In turn, individualized instruction and more hands-on activities result in more in-depth instructional content, more student self-direction, and, ultimately, greater student achievement as reflected by higher achievement scores. Logically, it seems likely that the number of children in a class will increase the amount of time that teachers spend in procedural matters and, conversely, decrease the amount of time that can be spent on instruction and dealing with individual children.

Kane, Rockoff and Staiger (2008) found, in a systematic observation study of two schools matched on background factors, that teachers in small kindergarten – Grade-2 classes (about 14 students) engaged in more on-task behaviour over the year, while teachers in large classes (about 24 students) engaged in more off-task behaviour over the year. A study of pupil-adult ratios suggested that the most important classroom process affected by reduced class size is individualization of teaching (Kane & Staiger, 2008). Other research on pupil-adult ratios suggested that there is a tendency for teachers to devote less time to group instruction and more to individual instruction in smaller classes (Buckley, Schneider & Shang, 2004). Rockoff (2004) set out a comprehensive model of possible factors linking class size to student achievement, which included aspects connected to teaching: greater knowledge of students, more instructional time, greater student engagement, and more “in-depth” treatment of content in smaller classes. However, Boyd, Lankford, Loeb and Wyckoff (2005) concluded, on the basis of their review, that the effects of class size in the elementary grades are more in terms of student engagement than effects on teaching, although there is some evidence that teachers’ interpersonal styles benefit from small class reductions.

Most famously, Sjoquist and Stinebrickner (2007) found no statistically significant differences between class sizes for most teacher activities, and teachers did not alter the proportion of time spent interacting with the whole class, with groups, or with individuals in Nigeria. Worryingly, they found that these observation results were at odds with teachers' own views.

Smaller classes have been found more effective when instructional goals involve higher level cognitive skills including application, analysis, and synthesis Scafidi, (2007). Smaller classes provide for greater contact between students and teachers which appears to be most needed for students with low motivation, those with little knowledge of the subject matter, or those who have difficulty grasping conceptual material. Smaller classes are also more effective than large ones in affecting student attitudes. In sum, the optimal size of a class depends on the instructional goals being pursued. The main advantage smaller classes have over larger ones is that they provide students with greater opportunities for interaction with subject matter, with the teacher and with one another.

Teaching large classes has been found to adversely affect morale, motivation and self-esteem of teachers. Although many teachers could manage a class of almost any size successfully, this could often be at the expense of the teacher's own well being and the range of learning experiences offered to students. Many teachers of large classes feel they spend too much time on organising and managing class activities and not enough on meeting the needs of individual children. Large classes and overcrowded classrooms have negative effects on students' behaviour and learning (Moglia, Smith, MacIntosh & Somers, 2006).

Studies by Okach 2011 found out that class size had a major impact on teacher motivation and morale. He argued that in instances of very large classes the teachers had the challenge of handling many learners especially so in the primary school age children. This caused them a lot of pressure in terms of work load taking into account that the primary school age needed a lot of attention in terms of mentorship and tutelage as they were young and restless. This concurred with studies carried out by Maingi 2012 who attested to the fact that academic performance in all spheres was heavily influenced by class size which determined the capacity of the teacher to ably deliver their mandates.

2.6 Summary of literature review

Past studies have shown a relationship between teachers' remuneration and their effectiveness (Loeb, Susanna & Page, 2000; Kingdon, 1996; Rivkin, Hanushek & Kain, 2005; Clotfelter, Ladd & Vigdor, 2006; Strunk & Zeehandelaar, 2011; Hanushek & Rivkin, 2010; Ronfeldt, Lankford, Loeb & Wyckoff, 2011; Ariko, 2009; Matovu, 2001).

However, they are inconsistent some showing a major relationship while other show an insignificant relationship between remuneration and teachers' effectiveness. This study will reconcile the varied findings. Studies on teacher effectiveness and school facilities show that good school facilities improve teachers' effectiveness while poor school facilities affect teachers' effectiveness negatively (Ingersoll, 2001; Gurney, 2007; Schneider, 2003; Mulkeen, 2005; Muijs & Reynolds, 2005; Rothstein, 2010). The extent to which this applies in Gaturi Division is yet to be established. Studies on head teachers' training in financial management showed that most head teachers are not fully trained on financial management (Adegbemile, 2011; Davies & Ellison,

2003; Bisschoff & Mestry, 2004; Mosoeunyane, 1999; Baraka; 2012) Wanjau, 2008). This undermines teachers, subordinate staff and students' performance. Those on class size and teacher effectiveness also depict a positive relationship (Krueger, 2000; Angrist & Lavy, 1999; Ballou, 2001; Kane, Rockoff & Staiger, 2008; Boyd, Lankford, Loeb & Wyckoff, 2005; Scafidi, Sjoquist & Stinebrickner, 2007; Moglia, Smith, MacIntosh & Somers, 2006). The extent to which they apply in Gaturi Division is yet to be determined and this is the rationale for this study.

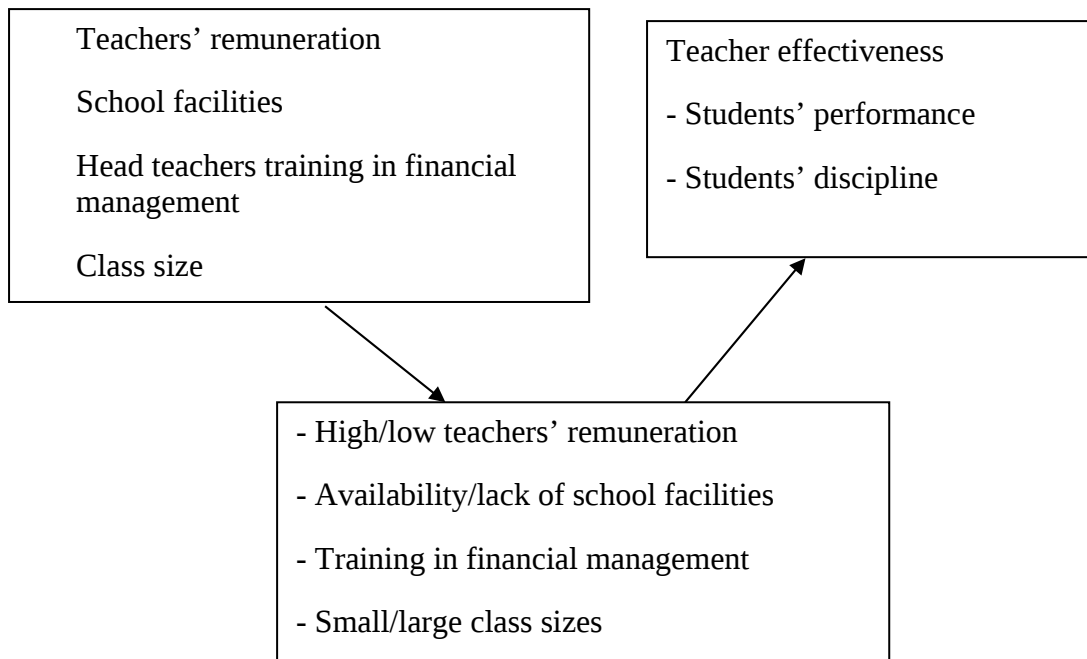
2.7 Theoretical framework

This study was guided by capacity-building theory of action. According to Tinto and Pusser (2006) Capacity Building Theory of Action underscores the importance of school management, classroom management skills; understanding of students' social, cultural, and economic backgrounds; understanding of cognitive and human development; ability to collaborate with peers; and ability to cultivate partnerships with parents and the broader community as critical components of effective teaching. The theory reasons that if schools provide supports that build the capacity of teachers to address the elements of effective teaching, then student performance will increase and achievement gaps will narrow.

The theory is applicable to the study because of the socio-economic factors affecting teacher effectiveness. If the head teachers can give financial support to teachers, it would increase teachers' effectiveness. Improving the school facilities would improve teachers' capacity to teach hence effectiveness. If the class sizes are in accordance with the resources available, teachers can become more effective.

2.8 Conceptual framework on socio - economic factors influencing teachers' effectiveness in primary schools

This study can be conceptualised as shown in Figure 2.1: Conceptual framework on socio - economic factors influencing teachers' effectiveness



The conceptual framework has four independent variables; teachers' remuneration, school facilities, head teachers' training in financial management and class size. The four are connected to teacher effectiveness. High remuneration is likely to result in teacher effectiveness while low remuneration would lead to teacher ineffectiveness. When school facilities are available and in good working condition, teachers are likely to teach better making them more effective. Head teachers' skills in financial management may also affect teachers' effectiveness with good financial management skills contributing to teacher effectiveness and poor financial management skills leading to teachers' ineffectiveness. The class size affects teachers' workload hence their effectiveness.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section focuses on the research design, target population, sample size and sampling procedure. It also has research instruments, validity and reliability of the instruments, data collection procedure and data analysis and presentation.

3.2 Research design

A research design shows which individuals will be studied; as well as when, where and in which context (Oso & Onen, 2005). Descriptive survey research design was used in this study because the subjects were observed in a completely natural and unchanged natural environment without influencing them. This implied that it was more likely to get the true nature of the variable under study. In addition, the research design provided a means to contextually interpret and understand the socio-economic factors influencing teachers' effectiveness. It also helped in measuring the respondents' attitudes, opinions, habits or any of the variety of education or social issues in a large population.

3.3 Target population

Population is the totality of persons, events, organization units, case records or other sampling units with which the research problem is concerned. The population for this research was the 30 public primary schools in Gaturi Division. There were 240 teachers in these schools, 30 head teacher and 8,432 pupils and it was from these that the sample was drawn.

3.4 Sample size and sampling procedure

Sampling means taking any portion of the population as being representative of that population. Out of the 30 public primary schools, 15 and their head teachers took part of the study. Out of the 240 teachers, 120 were from the sample population. Out of the 8432 pupils 843 took part in the study. Simple random sampling, as a sampling technique was employed to give a fair chance for everyone involved in this research to be identified. According to Mugenda and Mugenda (1999), a sample of 10% of the target population is sufficient to represent the whole population. However, a bigger sample increases its representativeness and that is why a 50% sample was preferred.

3.5 Research instruments

The study used questionnaires for teachers and head teachers and interview schedules for the District Quality Assurance Officer for data collection. The research instruments were made in accordance with the objectives of the study. The questionnaire was preferred because it helped the respondents to maintain some degree of anonymity, which was believed to increase the level of their objectivity (Orodho, 2005). The interview schedule on the other hand was useful to obtain detailed information about personal feelings, perceptions and opinions. It was preferred because it allowed more detailed questions to be asked. A higher response rate was achieved through the interview and ambiguities were clarified and incomplete answers followed up (Orodho, 2005).

3.5.1 Validity of research instruments

Validity is the appropriateness, meaningfulness and usefulness of the specific inferences made from test scores (Kothari, 2004). It is the degree to which results

obtained from the analysis of the data actually represent the phenomenon under study. Content validity within this research was ensured by the researcher applying the right procedure for sampling and collecting the correct data-gathering instruments. In addition, a pilot study in randomly selected schools in Gaturi Division helped to establish whether the instruments of data collection measure what they were intended to measure. Furthermore, the researcher consulted the experts in the field of research in order to ascertain and clarify that the test instruments could measure what they were intended to measure.

3.5.2 Reliability of research instruments

In simple terms, reliability means consistency of results. This means there is the same outcome for repeated trials (Kothari, 2004). In this research, reliability was enhanced through a pilot study in randomly selected schools in Gaturi Division. Test-retest method was used to do this (Kothari, 2004). Individuals who were randomly selected were asked to fill the questionnaire and then fill the same questionnaire again after three weeks. The results from the two tests were then correlated using Pearson Product Moment correlation. It was simply the average of the sum of the Z score products and it measured the strength of linear relationship between two characteristics. The closer the scores were, the more reliable the research instruments were. Therefore, a reliability coefficient of 0.8 and above showed that the instrument was reliable.

3.6 Data collection procedures

After obtaining a research permit from the National Council of Science and Technology, the researcher sought authority from the county director of education and the district education officers in order to facilitate interviews with the selected

informants. The questionnaires were administered to the respondents from within their respective schools. A deadline was set by which the completed questionnaires were ready. To ensure high response rates, the researcher interpreted each of the sections of the questionnaires to the respondents to ensure that they fully understood the questions before answering.

3.7 Data analysis techniques

After the fieldwork, all the questionnaires were adequately checked for completeness. This was to ensure that the output was free from outliers and the effect of missing responses was at minimum. Quantitative analysis was involved in generating descriptive statistics. The descriptive statistics included frequency tallies and their corresponding percentage scores. The findings were presented by using frequency tables. Qualitative analysis involved categorizing data from interviews into common themes, coding and generating frequency tallies and the resulting percentages. Data analysis was done with the help of Statistical Package for Social Sciences (SPSS). The results of the data analysis were presented using frequency tables.

CHAPTER FOUR

DATA ANALYSIS, DISCUSSION AND INTERPRETATION OF FINDINGS

4.1 Introduction

The study was carried out in Murang'a East district and it sought to find out the social economic factors influencing teachers' effectiveness in productivity in Gatari division, Murang'a County, Kenya. All analysis used descriptive statistics and statistical tests whereby frequencies were obtained and expressed in percentage form. The opinions were interpreted and their content analyzed and described. The same was used to answer the research questions put forth when the researcher sought to find out the factors affecting the situation.

The study sought to find out how remuneration, school facilities, the level of headteachers training in financial management and class sizes influenced teachers' effectiveness in productivity in public primary schools in Gatari division, Murang'a County. The study had its population of interest as the public primary school head teachers and teachers in Gatari division who were sampled by the use of questionnaires. The district quality assurance officer was subjected to an interview schedule.

4.2 Head teachers' demographic data

The study sought to find out the sociodemographic data as regards the headteachers' ages, genders and work experience with a view of relating the information to the social economic factors influencing teachers' effectiveness in productivity.

The response which entailed the participation by the headteachers sampled in the study was as indicated in the table 4.1.

Table 4.1

Headteachers' response rate

Response	Frequency	Percent
Number of questionnaires returned by headteachers	15	100
Number of questionnaires not returned	0	0
Total	15	100

The response can be interpreted to show a willing participation from the sampled respondents attributed to the situation of all the respondents sampled by the study filing and returning the questionnaires.

The headteachers' genders from the sampled respondents were as shown in table 4.2.

Table 4.2

Head teachers' genders

Age bracket	Frequency	Percent
Male	9	60
Female	6	40
Total	15	100

The descriptive statistics depicting the headteachers' genders were as shown in table 4.2.1.

Table 4.2.1

Head teachers' genders statistics

Statistics		
respondents gender		
N	Valid	15
	Missing	26
Mean		1.40
Median		1.00
Mode		1
Std. Deviation		.507

The response as shown in table 4.2 and table 4.2.1 reflects a higher percentage of male respondents serving as head teachers from the sampled population.

The ages of the sampled headteachers who participated in the study were as shown in table 4.3

Table 4.3

Headteachers' ages

Age bracket	Frequency	Percent
25-50 Years	12	80
50-60 Years	3	20
Total	15	100

The statistics for the headteachers' ages from the sampled respondents were as shown in table 4.3.1.

Table 4.3.1

Headteachers' ages statistics

Descriptive Statistics			
	N	Mean	Std. Deviation
Respondents age	15	2.20	.414
Valid N (listwise)	15		

The response as shown in table 4.3 and 4.3.1 shows that most of the sampled respondents were aged between 25-50 years. This can be interpreted to show a good dispersion of the head teachers in terms of age among the sampled respondents.

Table 4.4 shows the academic qualifications of the headteachers who participated in the study.

Table 4.4

Headteachers' academic qualifications

Academic qualifications	Frequency	Percent
Diploma in Education	7	47
Bachelors Degree	8	53
Total	15	100

Table 4.4.1 shows the statistics for the academic qualifications of the headteachers who participated in the study.

Table 4.4.1

Headteachers' academic qualifications statistics

Statistics		
Academic Qualifications		
N	Valid	15
	Missing	26
Mean		3.07
Median		4.00
Mode		4
Std. Deviation		1.033

The response as indicated in table 4.4 and table 4.4.1 was reflective of head teachers who had pursued further education in the wake of personal growth and development attributed to the fact that the entry grade of the profession is the P1 certificate level.

The length of service of the headteachers who participated in the study was as shown in table 4.5.

Table 4.5

Length of being a headteacher

Length of time	Frequency	Percent
11-20 years	6	40
21-30 years	9	60
Total	15	100

The statistics for the length of service of the headteachers who participated in the study were as shown in table 4.5.1.

Table 4.5.1

Length of being a headteacher statistics

Statistics		
length of service		
N	Valid	15
	Missing	26
Mean		2.60
Median		3.00
Mode		3
Std. Deviation		.507

Table 4.5 and table 4.5.1 reflect different spans of experience in the sampled headteachers.

4.3 Teachers' demographic data

The study sought to find out the teachers' sociodemographic information with a view of getting insights as to how they understood the thrust of the phenomena under study.

Table 4.6

Teachers' response rate

Response	Frequency	Percent
Number of questionnaires returned by teachers	102	85
Number of questionnaires not returned	18	15
Total	120	100

The response was a reflection of an active participation from the sampled teachers with 85% of them filling and returning back the questionnaires.

The genders of the teachers who participated in the study was as captured in table 4.7.

Table 4.7

Teachers' genders

Age bracket	Frequency	Percent
Male	59	58
Female	43	42
Total	102	100

The statistics for the genders of the teachers who participated in the study were as captured in table 4.7.1.

Table 4.7.1

Teachers' genders statistics

Statistics		
Respondents genders		
N	Valid	15
	Missing	26
Mean		1.40
Median		1.00
Mode		1
Std. Deviation		.507

Table 4.7 and table 4.7.1 reflect a higher percentage of male respondents serving as teachers from the sampled population.

The ages of the teachers who participated in the study were as shown in table 4.8.

Table 4.8

Teachers' ages

Age bracket	Frequency	Percent
--------------------	------------------	----------------

18-25 years	6	6
25-50 years	80	78
50-60 years	16	16
Total	102	100

The statistics for the ages of the teachers who participated in the study were as shown in table 4.8.1.

Table 4.8.1

Teachers' ages statistics

Descriptive Statistics			
	N	Mean	Std. Deviation
Respondents age	102	2.10	.456
Valid N (listwise)	102		

Table 4.8 and table 4.8.1 shows that majority of the sampled respondents were aged between 25-50 years. This can be interpreted to show a high number of teachers who are in the middle age bracket in the sampled population.

The academic qualifications of the teachers who participated in the study were as shown in table 4.9.

Table 4.9

Teachers academic qualifications

Academic qualifications	Frequency	Percent
P1	44	43
Diploma in Education	31	30
Bachelors Degree	27	27

Total	102	100
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The statistics for academic qualifications of the teachers who participated in the study were as shown in table 4.9.1.

Table 4.9.1

Teachers' academic qualifications statistics

Statistics		
Academic qualifications		
N	Valid	102
	Missing	0
Mean		2.10
Median		2.00
Mode		1
Std. Deviation		1.223

Table 4.9 and table 4.9.1 was reflective of teachers who had invested in continued education driven by their qualifications which were advanced in comparison to the teaching profession entry grade level which is a P1 certificate.

The length of service of the teachers who participated in the study was as shown in table 4.10.

Table 4.10

Length of being a teacher

Length of time	Frequency	Percent
-----------------------	------------------	----------------

1-10 years	49	48
11-10 years	30	29
21-30 years	16	16
31-40 years	7	7
Total	102	100

The statistics for the length of service of the teachers who participated in the study was as shown in table 4.10.1.

Table 4.10.1

Length of being a teacher statistics

Statistics		
length of service		
N	Valid	102
	Missing	0
Mean		1.81
Median		2.00
Mode		1
Std. Deviation		.941

Table 4.10 and table 4.10.1 reflect disparities with regard to the experience gained in the teaching career.

4.4 Personal traits of the teachers

Table 4.11 shows the perceptions of the teachers with regard to the effectiveness in productivity as pertains achieving their mandates.

Table 4.11

Personal attributes of the teachers identifying their productivity

Frequency in class observation	Frequency	Percent
Moderately ineffective	20	20
Effective	60	58
Highly effective	22	22
Total	102	100

Table 4.11.1 shows a cross tabulation for teacher personality traits with regard to their self-perceptions on their efficiency levels

Table 4.11.1

A cross tabulation for teacher personality traits with regard to their self-perceptions on their efficiency levels

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.316 ^a	2	.000
Likelihood Ratio	35.117	2	.000
N of Valid Cases	102		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.96.

Table 4.11 and table 4.11.1 was a confirmation of a high number of the teachers considering themselves effective in the delivery of their functions. Cross tabulation was done which gave a Chi-square value of $\chi^2 = 40.316$ at a significance level of 0.000. The calculated statistic $\chi^2 = 40.316$ was found to be greater than the tabled critical value of $\chi^2 = 35.117$. It can be interpreted that, statistically, there was relationship between the teachers' personality traits with regard to their self-perceptions on their efficiency levels at $\alpha = 1.96$.

The response by the headteachers compares well with that of the teachers which confirmed that the headteachers equally considered themselves effective in their duties and functions.

4.5 Remuneration

Teacher remuneration is the salaries and benefits offered to teachers for their teaching work. Changes in teacher pay are likely to affect education quality through two mechanisms: by influencing the efficiency of the school and by affecting teacher quality (Loeb, Susanna & Page, 2000). Their intuition suggested that higher teacher pay may improve the efficiency of schools by reducing teacher turnover. Reduction in turnover may save the government on training costs and ensure continuity on the teaching and learning programmes in the education systems.

Table 4.12 shows the response by the teachers on the impact of the levels of remuneration on their effectiveness in productivity

Table 4.12

Response by the teachers on the impact of the level of remuneration on their effectiveness in productivity

Response	Frequency	Percent
Yes	92	90
No	10	10
Total	102	100

Table 4.12.1 shows the statistics for the response by the teachers on the impact of the levels of remuneration on their effectiveness in productivity

Table 4.12.1

Response by the teachers on the impact of the level of remuneration on their effectiveness in productivity statistics

Statistics		
Remuneration on effectiveness		
N	Valid	102
	Missing	0
Mean		1.90
Median		2.00
Mode		2
Std. Deviation		.299

The response as shown in table 4.12 and table 4.12.1 was an indicator of most the teachers considering remuneration levels as to having an impact on their effectiveness in productivity. The teachers argued that a lot of time was spent thinking and engaging in other activities geared towards raising money to supplement their incomes at the expense of delivering in their professional activities. This greatly impaired their effectiveness in productivity and capacity at work attributed to low remuneration levels.

This is in line with previous works by Kingdon (1996) who stated that in America teacher turnover can have a disruptive impact on student achievement by diverting district resources to the hiring process, weakening teacher collaboration, and eroding the bond or level of trust between students and teachers. He noted that increases in teacher salary could have an immediate negative impact on teacher turnover, thereby

increasing a school's efficiency. This is attributed to remuneration levels which impact on the turnover levels.

The headteachers equally had the position that showed the remuneration levels greatly affecting their capacities as regards efficiency and productivity at the work place. This was confirmed by the fact that all the head teachers confirmed that remuneration impacted on their effectiveness in productivity. The response was thus a confirmation of the impact of the remuneration levels on the effectiveness in productivity of the head teachers.

The teachers and the head teachers attested to the remuneration levels impacting on their capacities with regard to effectiveness in productivity in the work place by virtue of the fact that their foremost attraction to work was the pay and in the event of not meeting their personal financial obligations, their concentration at work is very compromised.

The response was a confirmation of the position taken by the district quality assurance officer who attested to the fact that the current remuneration levels were not adequate to ensure effective and optimum productivity of the teachers. He confirmed that this was a factor that had come out strongly in the course of his supervisory visits to the schools in Gatari division.

Table 4.13 shows the response of the teachers detailing their levels of agreement with varying parameters related to the remuneration levels with the respondents' ages acting as the stratification mark.

Table 4.13

Teachers response on attributes related to the remuneration level with regard to their effectiveness in productivity

		Respondents Age			
		18-25 years	25-50 years	50-60 years	Total
Salary affects my productivity	Agree	0	17	16	33
	Strongly Agree	6	63	0	69
Total		6	80	16	102
Salary has no effect on me	Strongly disagree	6	67	0	73
	Disagree	0	13	16	29
Total		6	80	16	102
Salary affects teacher morale	Agree	6	19	16	41
	Strongly Agree	0	61	0	61
Total		6	80	16	102
Salary impacts on turnover	Strongly Disagree	6	64	0	70
	Disagree	0	16	16	32
Total		6	80	16	102

Table 4.13 shows that the sampled were in agreement that the remuneration levels affects their effectiveness in productivity with all the teachers agreeing to the fact that their productivity was influenced by the remuneration and there was a scenario whereby most of them strongly agreed. All the teachers equally disagreed with the position that salary had no effect on their productivity and effectiveness in productivity at work. All the teachers equally agreed that the remuneration affected their morale and impacted on their effectiveness in productivity at work with the majority strongly agreeing. All the teachers disagreed that the remuneration levels had an effect of reduced turnover in the teaching profession. This was a clear indication that the remuneration levels had a great impact on the productivity and the capacity of the teachers to be efficient at their work places.

The position of the teachers identifies with that of the headteachers who equally attested to the remuneration impacting on the teacher productivity by way of all the headteachers agreeing that the productivity was influenced by the remuneration

levels. All the headteachers shared similar sentiments with the teachers that salary had an effect on the efficiency by way of all of them disagreeing to the position that salary had no effect on them while all the headteachers equally agreed that remuneration impacted heavily on the morale of the teachers. All the headteachers shared a common position by way of disagreeing to the position that high salary reduced turnover in the teaching profession. This shows that the same positions and opinions voiced by the teachers applied to the headteachers. Thus showing that remuneration heavily influenced productivity and efficiency.

The District Quality Assurance Officer equally identified and shared similar positions with the respondents when he said that remuneration levels heavily influenced the productivity of the teachers in the district.

Table 4.14 shows the responses by the teachers as regards the extent to which remuneration affected their effectiveness in productivity.

Table 4.14

Response from teachers on the extent to which remuneration affected their effectiveness in productivity

Response	Frequency	Percent
Moderate extent	23	22
Great extent	61	60
Very great extent	18	18
Total	102	100

Table 4.14.1 shows the statistics for the responses by the teachers as regards the extent to which remuneration affected their effectiveness in productivity.

Table 4.14.1

Statistics for the responses from teachers on the extent to which remuneration affected their effectiveness in productivity

Descriptive Statistics			
	N	Mean	Std. Deviation
Salary on teacher effectiveness	102	3.95	.635
Valid N (listwise)	102		

Table 4.14 and table 4.14.1 can be interpreted to mean that all the teachers appreciated that remuneration affects teachers' effectiveness in productivity even though to varied levels. This was an indication that remuneration is a critical aspect which greatly influenced teacher productivity and effectiveness in productivity.

Table 4.14.2 shows a cross tabulation of remuneration levels and teachers efficiency

Table 4.14.2

A cross tabulation of remuneration levels and teachers efficiency

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.739 ^a	2	.000
Likelihood Ratio	40.703	2	.000
Linear-by-Linear	30.236	1	.000
Association			
N of Valid Cases	102		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.76.

The data was analyzed using Chi-square statistic, and a calculated statistic of $\chi^2 = 51.739$ at a significance level of 0.00 was obtained. The calculated statistic, $\chi^2 = 51.739$, was found to be greater than the tabled critical value of $\chi^2 = 40.703$. This showed that, statistically, there was a relationship between remuneration levels and teacher efficiency at $\alpha = 1.76$.

The response identifies with that of the head teachers who agreed that remuneration levels affected teachers effectiveness in productivity. The response can be interpreted to mean that remuneration is a critical factor as regards influencing the effectiveness in productivity of the teachers.

4.5.1 Response by teachers on ways in which teacher remuneration can be improved to enhance teacher effectiveness in productivity

The teachers suggested ways on which the remuneration levels can be improved to enhance their effectiveness in productivity. They called for the need to have them awarded responsibility allowances like the members of other professions owing to the fact that they considered their profession as a challenging one. They called for provisions for overtime allowances taking into account that they worked for many long hours in comparison to the members of the other professions. Provisions for performance tokens was equally a way which teachers believed would aid improve their remuneration and motivate them to work harder to qualify for the tokens.

4.6 School facilities

School facilities are the libraries, text books, chalk boards, pens and any other item which make the teaching-learning process possible and easier. Ingersoll (2001) claims that a good teacher can teach anywhere and that a willing student is capable of learning in spite of the setting. There may be some truth to that. The issue is, however, whether teachers teach as well or students learn as much as they could have in better surroundings. It is simply a fact that the school environment itself has a largely untapped potential as an active contributor to the learning process. In each society there are facilities other than classrooms that can contribute in no small measure to teaching and learning process. For learning to take place learners must have access to necessary information materials and resources. They have to interact with tangible and intangible resources and institutions to ensure some levels of performance.

Table 4.15 shows the responses by teachers on the capacity of school facilities to affect teacher effectiveness in productivity

Table 4.15

Response by teachers on the capacity of school facilities to affect teacher effectiveness in productivity

Response	Frequency	Percent
Yes	95	93%
No	7	7%
Total	102	100

Statistics for the responses by teachers on the capacity of school facilities to affect teacher effectiveness in productivity were as shown in table 4.15.1.

Table 4.15.1

Statistics for the responses by teachers on the capacity of school facilities to affect teacher effectiveness in productivity

Descriptive Statistics			
	N	Mean	Std. Deviation
salary on teacher effectiveness	15	4.07	.594
Valid N (listwise)	15		

The response as indicated in table 4.15 and table 4.15.1 shows that most of the sampled teachers believed that the school facilities affected their effectiveness in productivity. This identifies with previous works by Gurney (2007) who noted that in London, successful teaching and learning takes place in school buildings that are clean, quiet, safe, comfortable, and healthy. Buildings that are not properly maintained have the potential to inhibit student success due to one or more deficiencies in the facility. Lack of school facilities can impede teacher effectiveness in productivity and student success.

The teachers argued that the school facilities affected their effectiveness in productivity owing to the fact that they determined the accessibility to a conducive environment requisite for the execution of their obligations and functions. The facilities equally dictated the ability of the learners to grasp and understand what they were taught in class thus it had a great influence on the working environment and the capacity of the learners to be receptive to the teachers.

The response by the teachers sampled concurs with the position taken by the headteachers. The response shows that most of the headteachers identified with the sentiments expressed by the teachers as regards the capacity of the school facilities to influence teacher effectiveness in productivity. This concurs with the position of the District Quality Assurance Officer who argued that school facilities had a major effect on teacher effectiveness in productivity and there were many instances of teacher effectiveness in productivity being impaired in the district owing to lack adequate facilities in many schools.

Table 4.16 shows the response by the teachers as regards their levels of agreements with attributes related to the capacity of school facilities to affect their effectiveness in productivity.

Table 4.16

Responses by teachers on attributes related to the school facilities affecting their effectiveness in productivity

		Academic Qualifications			
		P1	Education	Diploma	in Bachelors
				Degree	Total
There are enough facilities in my school	Strongly disagree	44	21	0	65
	Disagree	0	10	27	37
Total		44	31	27	102
The facilities in our school help teachers teach better	Agree	0	12	27	39
	Strongly Agree	44	19	0	63
Total		44	31	27	102
The facilities help provide better conditions	Agree	5	31	27	63
	Strongly Agree	39	0	0	39
Total		44	31	27	102
The facilities increase teacher morale	Agree	1	31	27	59
	Strongly Agree	43	0	0	43
Total		44	31	27	102

The response as shown in table 4.16 above indicates that all the teachers were in agreement that the facilities in their schools were not adequate. All the teachers were equally in agreement that the presence of facilities enhanced their effectiveness in productivity by way of helping them teach better. All the teachers were in agreement that the facilities provide better working conditions. The capacity of the facilities to increase teacher morale was evident from the responses brought forth by the sampled teachers. The responses from the sampled teachers were striking in that the teachers with higher levels of academic qualifications had few misgivings about presence of facilities in their schools and the capacity of the facilities to affect their effectiveness in productivity. This can be interpreted to mean that the inhibitions and perceptions about facilities affecting and influencing effectiveness in productivity in the teachers are more in the minds of the teachers and a change of attitude driven by exposure can thus change the tide.

The teachers' position identifies with Schneider (2003) who noted that the quality of facilities has more of an effect on factors such as student attitudes toward school, self-esteem, security, comfort, and pro-social behaviour, which in turn affect learning and achievement. The above information shows a very close relationship between the physical environment and how well students and teachers perform in that environment.

The position taken by the headteachers is almost a replica of that of the teachers and it showed that all the headteachers attested to not having enough facilities in their schools and they equally confirmed that the facilities helped teachers to teach better thus aiding their effectiveness in productivity. The headteachers confirmed that the facilities in the schools provided better working conditions and increased teacher morale. This can be interpreted to mean that the school facilities were an integral part as regards influencing teacher efficiency in the sampled schools.

The positions taken by the teachers and headteachers were shared by the District Quality Assurance Officer who confirmed that there were no enough facilities in many schools in the district to ensure adequate effectiveness in productivity of the teachers and their productivity had been heavily constrained owing to lack of facilities in many schools. This shows that many schools had constrained facilities and this greatly impaired the productivity of the teachers in their quest to deliver their mandates.

The responses from teachers on the extent to which school facilities affected their effectiveness in productivity were as captured in table 4.17

Table 4.17

Response by teachers on the extent to which school facilities affect their effectiveness in productivity

Response	Frequency	Percent
Moderate extent	17	17
Great extent	70	68
Very great extent	15	15
Total	102	100

The statistics on the responses from teachers on the extent to which school facilities affected their effectiveness in productivity were as captured in table 4.17.1.

Table 4.17.1

Statistics for the response by teachers on the extent to which school facilities affect their effectiveness in productivity

Descriptive Statistics			
			Std.
	N	Mean	Deviation
facilities increase teachers effectiveness	102	3.98	.563
Valid N (listwise)	102		

The response as shown in table 4.17 and table 4.17.1 can be interpreted to mean that all the teachers viewed the presence of school facilities as a factor which heavily influenced and affected their effectiveness in productivity.

A correlation between the levels of academic qualifications and the teachers perceptions on the extent to which school facilities affected their effectiveness in productivity was as shown in table 4.17.2.

Table 4.17.2

A correlation between the levels of academic qualifications and the teachers perceptions on the extent to which school facilities affected their effectiveness in productivity

		Correlations		
			facilities increase teachers effectiveness	academic qualifications
Spearman's rho	facilities increase teachers effectiveness	Correlation Coefficient	1.000	.671**
		Sig. (2-tailed)	.	.000
		N	102	102
	academic qualifications	Correlation Coefficient	.671**	1.000
		Sig. (2-tailed)	.000	.
		N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4.17.2 shows that there was a correlation between levels of academic qualifications and the teachers perceptions on the extent to which school facilities affected their effectiveness in productivity, which was statistically significant ($r_s = .671, p = .01$). This can be interpreted to mean that the academic facilities are relative with regard to their capacity to influence teacher effectiveness in productivity. The teachers can surmount the constraints of facilities if they have the right attitudes and still get to be effective in their work.

The response identifies with that of the head teachers who attested to the school facilities having the capacity to influence teacher effectiveness. The response can be interpreted to mean that the school facilities had the capacity to influence teacher effectiveness in productivity.

4.6.1 Responses by teachers on ways in which school facilities can be improved on to enhance teacher effectiveness in productivity

The teacher suggested various ways in which school facilities can be improved on to enhance teacher effectiveness in productivity. They vouched for increased government funding to equip schools with better facilities. They argued for the forging of partnerships with sponsors and the donor community and having them fund school programmes for the enhancement of the facilities. The teachers equally called for the involvement of parents in the facility upgrade programmes whereby the parents are involved by way of having them contribute to the betterment of the school facilities.

4.7 Headteachers training in financial management

Evidence suggests that schools can save up to 5% of the average school budget through more efficient financial management (Clarke 2007). Similarly, Joubert and Bray (2007) describe a school's financial management as the performance of management actions connected with the financial aspects of a school for the achievement of effective education.

The study sought the teachers' views as to whether head teachers training in financial management affected their effectiveness in productivity. The responses were as captured in table 4.18.

Table 4.18

Response by teachers on whether headteachers training in financial management affects their effectiveness in productivity

Response	Frequency	Percent
Yes	21	21
No	81	79
Total	102	100

Statistics for the teachers' views as to whether head teachers training in financial management affected their effectiveness in productivity were as captured in table 4.18.1.

Table 4.18.1

Response by teachers on whether headteachers training in financial management affects their effectiveness in productivity statistics

Descriptive Statistics			
	N	Mean	Std. Deviation
Headteachers training in financial management	102	1.79	.406
Valid N (listwise)	102		

The response as shown in table 4.18 and table 4.18.1 can be interpreted to mean that most of the teachers believed that the headteachers' training in financial management did not affect their effectiveness in productivity. The teachers' position identifies well with Clarke (2007) who argued that the management of school finances involves the task of planning (budgeting), organizing (coordinating), leading (communicating and motivating), as well as controlling (auditing). The school's financial management is imperative because it enables the school to achieve effective education.

The response by the head teachers sampled differs significantly with that of the teachers. This is because the headteachers believed that their training on financial

management affected teacher effectiveness in productivity. This was a confirmation of the head teachers holding a position that the training they received on financial management was of benefit to them.

The District Quality Assurance Officer confirmed that the head teachers were not adequately trained to ensure that they had the requisite in financial management skills to confer their institutions with the benefit of sound management. He went further to say that there had been many instances of ineffectiveness in the teachers owing to inept financial management skills in the headteachers in many schools.

The study sought to find out the teachers' levels of agreement with various attributes pertaining the financial management training accorded to the head teachers. The length of service was used to stratify the teachers according to the number of years worked. Their responses were as captured in table 4.19

Table 4.19

Response by teachers on their levels of agreement with attributes on head teachers training in financial management

		Length of Service				Total
		1-10 years	11-20 years	21-30 years	31-40 years	
Our headteacher is financially supportive	Strongly disagree	0	8	0	0	8
	Disagree	49	21	0	0	70
	Agree	0	1	16	7	24
Total		49	30	16	7	102
Our headteacher has adequate financial skills	Strongly Disagree	17	0	0	0	17
	Disagree	32	1	2	7	42
	Agree	0	29	14	0	43
Total		49	30	16	7	102
Our headteacher takes keen interest in financial issues in the school	Disagree	13	10	0	0	23
	Agree	36	14	0	0	50
	Strongly Agree	0	6	16	7	29
Total		49	30	16	7	102
Our headteacher is transparent and accountable	Strongly Disagree	5	22	0	0	27
	Disagree	44	8	11	0	63
	Agree	0	0	5	7	12
Total		49	30	16	7	102
Our headteacher attends courses on financial management	Disagree	0	7	0	0	7
	Undecided	46	0	0	0	46
	Agree	3	23	16	7	49
Total		49	30	16	7	102
Our headteacher delegates financial role functions	Strongly Disagree	13	30	5	0	48
	Disagree	36	0	0	0	36
	Agree	0	0	11	7	18
Total		49	30	16	7	102

The response as indicated in table 4.19 shows that most of the teachers disagreed that the headteachers were very financially supportive with very few agreeing to the position. The responses equally showed that most of the teachers did not consider the headteachers as to having the adequate financial skills requisite for their positions. Most of the teachers agreed that the head teachers took a keen interest in the financial issues of the schools. The capacity of the head teachers to stand out as accountable and transparent in their financial management function was disputed by most of the teachers who disagreed with the attribute. Awareness of the attendance of financial management programmes by head teachers was not confirmed by a very significant number of teachers while some agreed that the headteachers attended financial management courses. Most of the teachers disagreed to the position of headteachers

delegating financial role functions to members of the senior management cadres in the institutions.

The teachers' response heavily contrasted with previous works by Davies and Ellison's (2003) whose study revealed that all the financial management skills are needed by the principals for effective schools' administration. The findings of the study further showed that majority of the principals were trained in financial management and as a result, they availed resources when teachers needed them improving their productivity and effectiveness in productivity.

The position of the headteachers differed very significantly with that of the teachers. The headteachers were all of the opinion that they were very financially supportive to the teachers. They equally attested to having very adequate financial skills and taking keen interest in financial issues in schools. The headteachers were all of the opinion that they exhibited transparency and accountability in financial management and they all confirmed to having had attended courses on financial management. The headteachers had only a slight similarity with the teachers on the position of delegation of financial role functions to senior management cadres in the schools which they disagreed to.

The responses can thus be interpreted to show lack of synergy in the schools as regards financial management practices. This is because the disconnect between the teachers and the head teachers was just too wide and it raised questions as to whether the headteachers were up to the required standards as regards financial management training.

The District Quality Assurance Officers' sentiments are a reflection of the position voiced by the teachers. He attested to the fact that the headteachers were not

adequately trained on financial management and their skills were wanting and this was a challenge to the teachers and the stakeholders in many primary schools in the district.

Table 4.20 shows the response of the teachers as regards the extent to which their effectiveness in productivity is affected by the headteachers' financial management training.

Table 4.20

Response by teachers on the extent to which headteachers financial management training affects their effectiveness in productivity

Response	Frequency	Percent
Moderate extent	13	13
Great extent	31	30
Very great extent	58	57
Total	102	100

Table 4.20.1 shows the statistics for the response of the teachers as regards the extent to which their effectiveness in productivity is affected by the headteachers' financial management training.

Table 4.20.1

Statistics for the response by teachers on the extent to which headteachers financial management training affects their effectiveness in productivity

Descriptive Statistics			
	N	Mean	Std. Deviation
Training in financial management on teachers effectiveness	102	4.44	.712
Valid N (listwise)	102		

The response as shown in table 4.20 and table 4.20.1 shows that the head teachers' financial management training greatly affected the teachers' effectiveness in productivity. This can be interpreted to show that the financial management training is a key and integral element which can greatly influence teacher's effectiveness in productivity and more emphasis should be placed on it.

A correlation between the headteachers training in financial management and teacher effectiveness in productivity was as shown in table 4.20.2

Table 4.20.2

A correlation between the headteachers training in financial management and teacher effectiveness in productivity

Correlations				
			Headteachers strain in financial management	Training in financial management on teachers effectiveness
Spearman's rho	Headteachers strain in financial management	Correlation	1.000	.439**
		Coefficient		
		Sig. (2-tailed)	.	.000
		N	102	102
	Training in financial management on teachers effectiveness	Correlation	.439**	1.000
		Coefficient		
Sig. (2-tailed)		.000	.	
	N	102	102	

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4.20.2 shows that there was a correlation between headteachers training in financial management and teacher effectiveness in productivity, which was statistically significant ($r_s = .439, p = .01$). This can be interpreted to mean that the headteachers training in financial management affects teacher effectiveness in productivity.

4.7.1 Response by teachers on ways in which headteachers training in financial management can be improved

The study sought to find the teachers' views on how the headteachers' training in financial management can be improved so as to improve teachers' effectiveness in productivity. The teachers suggested the employment of refresher courses for the headteachers, enforcement of rules requiring headteachers to attend financial management courses to qualify for promotion and having stiffer regimes as regards the supervision of schools financial records which would force the headteachers to attend financial literacy programmes.

4.8 Class size

A teacher to student ratio of 1:40 is acceptable but in some schools in the developing world, the ratio is 1:70 or even higher (Krueger, 2000). Angrist & Lavy (1999) found specific effects in the classroom associated with reducing class size in New York. The most obvious result is that teachers are more apt to individualize their instruction to fit the needs of their students. Through one-on-one tutoring, small-group learning and total class teaching, individual student understanding and input are elicited, critiqued and corrected or extended. The content taught is largely the same, but the teaching techniques vary for each student.

The study sought to find the teachers opinions on how class size affects teachers' effectiveness in productivity. The response was as shown in table 4.21

Table 4.21

Response from the teachers as regards the impact of class size on teacher effectiveness in productivity

Response	Frequency	Valid percent
Yes	94	92
No	8	8
Total	102	100

Statistics for the teachers' opinions on how class size affects teachers' effectiveness in productivity were as shown in table 4.21.1

Table 4.21.1

Response from the teachers as regards the impact of class size on teacher effectiveness in productivity statistics

Statistics		
Class size on teacher effectiveness		
N	Valid	102
	Missing	0
Mean		1.92
Median		2.00
Mode		2
Std. Deviation		.270

The response as shown in table 4.21 and table 4.21.1 shows that most of the teachers considered class size as a factor which affected their effectiveness in productivity. The teachers argued that small classes were manageable in terms of control, effective supervision, and ability to give individual attention to the learners. This identifies with studies carried out by Ballou (2001) which argued that the increased use of individualization in reduced-size classes is possible because teachers can spend more time on students and less on disciplinary issues, have greater knowledge of their students, and feel more enthusiastic about their work hence become more effective. In turn, individualized instruction and more hands-on activities result in more in-depth instructional content, more student self-direction, and, ultimately, greater student achievement as reflected by higher achievement scores. Logically, it seems likely that the number of children in a class will increase the amount of time that teachers spend in procedural matters and, conversely, decrease the amount of time that can be spent on instruction and dealing with individual children.

The response by the head teachers concurs with that of the teachers who confirmed that the class sizes greatly affected teacher effectiveness in productivity. It shows that the head teachers considered the class sizes as a critical factor as regards the ability

and capacity of the teachers to effectively deliver their professional mandates of teaching the learners in the individual classes.

This identifies with sentiments expressed by the District Quality Assurance Officer who attested to the fact that the class sizes were large in many schools in the district and he considered them as not adequate to be handled effectively by the teachers. He argued that the extremely large classes greatly impaired the teachers' capacities to confer individual attention to the learners and the capacity to effectively give out assignments and mark them on time.

The response by teachers on their levels of agreement with various attributes related to class sizes in their schools was sought. The teachers' personality traits were used to stratify them. The responses were as shown in table 4.22.

Table 4.22

Response by the teachers showing their levels of agreement with attributes related to class sizes in their schools

		Personality Trait			Total
		Moderately	Effective	Highly	
		ineffective	Effective	effective	
The class size is	Strongly	0	0	7	7
normal	Disagree				
	Disagree	0	49	15	64
	Agree	20	11		31
				0	
Total		20	60	22	102
The teachers in our	Disagree	0	42	7	49
school attend to pupils	Agree	20	18	15	53
individual needs					
Total		20	60	22	102
Our school has enough	Strongly	0	53	0	53
teaching and learning	Disagree				
materials	Disagree	20	7	13	40
	Agree	0	0	9	9
Total		20	60	22	102
Class sizes in our	Disagree	0	0	7	7
school make teachers	Agree	20	17	15	52
ineffective	Strongly Agree	0	43	0	43
Total		20	60	22	102

The response as indicated in table 4.22 shows that most of the teachers disagreed with the attribute of identifying the class sizes as normal. They considered the classes as large. Most of the teachers equally disagreed to the fact of having the capacity to attend to pupils' individual needs. The teachers were of the opinion that their schools did not have enough teaching and learning materials as it was evident from most of the teachers and they attested to the fact that the class sizes made the teachers ineffective with most of them concurring. This identifies with studies carried out by Kane & Staiger (2008) which suggested that pupil-adult ratios as the most important classroom process affected by reduced class size is individualization of teaching. The study suggested that there is a tendency for teachers to devote less time to group instruction and more to individual instruction in smaller classes.

The teachers' position identifies well with that of the head teachers who attested to the class sizes being large. They equally disagreed to the capacity of the teachers in their schools to attend to pupils' individual needs. They had a feeling that their schools did not have enough learning and teaching materials for the pupils and they confirmed that the class sizes in their schools owing to their large sizes made the teachers ineffective.

The response resonates with that of the District Quality Assurance Officer who equally confirmed that the average class sizes in the district was fifty five pupils which was just too large for the effective management by the teachers charged with the responsibility of handling them. This confirmed that the class sizes were a factor as regards teacher effectiveness in productivity in the district.

The study sought to find out from the teachers the extent to which the class sizes affected teachers' effectiveness in productivity and it was as shown in table 4.23.

Table 4.23

Response by teachers on the extent to which class size affected teachers' effectiveness in productivity

Response	Frequency	Percent
Moderate extent	21	21
Agree	44	43
Very small extent	37	36
Total	102	100

Statistics for the responses by the teachers on the extent to which the class sizes affected teachers' effectiveness in productivity and it was as shown in table 4.23.1.

Table 4.23.1

Response by teachers on the extent to which class size affected teachers' effectiveness in productivity statistics

Statistics		
Extent to which class size affects teachers effectiveness		
N	Valid	102
	Missing	0
	Mean	4.16
	Median	4.00
	Mode	4
	Std. Deviation	.741

Table 4.23 and table 4.23.1 shows that class sizes played an integral role in teacher efficiency in productivity.

A cross tabulation on class sizes and the extent to which they affected the teachers effectiveness was as shown in table 4.23.2

Table 4.23.2

A cross tabulation on class sizes and the extent to which they affected the teachers effectiveness

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.483 ^a	2	.000
Likelihood Ratio	28.174	2	.000
Linear-by-Linear	21.146	1	.000
Association			
N of Valid Cases	102		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.65.

Table 4.23.2 shows a calculated statistic of $\chi^2 = 33.483$ at a significance level of 0.000 was obtained. The calculated statistic, $\chi^2 = 33.483$, was found to be greater than the tabled critical value of $\chi^2 = 28.174$. This showed that, statistically, there was a significant relationship between class sizes and the extent to which they affected the teachers effectiveness at $\alpha = 1.65$.

The response by the teachers mirrors the response by the head teachers. The response is reflective of the influence of class sizes on teachers' effectiveness in productivity.

4.8.1 Suggestions by teachers on how class sizes should be improved so as to enhance teacher effectiveness in productivity

The teachers suggested that classes which were too big should be divided for more effective teaching and learning programmes. Practices of grouping learners as they undertook studies should be encouraged to help the learners who are weak by way of pairing them up with those who are bright. Involvement of learners in practical engagements which entail group activities was equally a suggestion which teachers believed would aid handle the large class sizes for the betterment of their effectiveness in productivity.

4.9 Summary of data analysis

4.9.1 Remuneration

The response showed that most the teachers considering remuneration levels as to having an impact on their effectiveness in productivity. The teachers argued that a lot of time were spent thinking and engaging in other activities geared towards raising money to supplement their incomes at the expense of delivering in their professional activities. This greatly impaired their effectiveness in productivity and capacity at work attributed to low remuneration levels.

This compares well to the findings by Hanushek and Rivkin (2010) carried out a study in South Africa on the relationship between teacher salaries and student achievement noted that that out of 118 estimates, only 20% were positive and significant, 7% were negative and significant and 73% were insignificant. Another strand of literature has had success in establishing indirect links between teacher pay and student outcomes. This could be directly linked to the ineffectiveness attributed to perceived low remuneration levels leading to poor performance in the affected learners. It shows the import of remuneration levels as a factor impacting on teacher effectiveness.

This identifies well with a survey carried out by Manpower Services (2011) which attributed low levels of job satisfaction in the Kenyan teachers to the perceived low salaries paid to them in comparison to the other public sector workers. This may be a pointer to the high incidences of industrial action and unrest in the teaching fraternity. The perception of a skewed remuneration structure which does not favor the teachers in comparison to the other public sector workers caused many teachers to either leave the service before the attainment of their retirement ages or have a lackluster

performance at work. This may be a great factor as regards impacting on teacher efficiency in productivity.

The sampled teachers were in agreement that the remuneration levels affects their effectiveness in productivity with all the teachers agreeing to the fact that their productivity was influenced by the remuneration and there was a scenario whereby most of them strongly agreed. All the teachers equally disagreed with the position that salary had no effect on their productivity and effectiveness in productivity at work. All the teachers equally agreed that the remuneration affected their morale and impacted on their effectiveness in productivity at work with the majority strongly agreeing. All the teachers disagreed that the remuneration levels had an effect of reduced turnover in the teaching profession. This was a clear indication that the remuneration levels had a great impact on the productivity and the capacity of the teachers to be efficient at their work places.

The position of the teachers identifies with that of the headteachers who equally attested to the remuneration impacting on the teacher productivity by way of all the headteachers agreeing that the productivity was influenced by the remuneration levels. All the headteachers shared similar sentiments with the teachers that salary had an effect on the efficiency by way of all of them disagreeing to the position that salary had no effect on them while all the headteachers equally agreed that remuneration impacted heavily on the morale of the teachers. All the headteachers shared a common position by way of disagreeing to the position that high salary reduced turnover in the teaching profession.

The teachers suggested ways on which the remuneration levels can be improved to enhance their effectiveness in productivity. They called for the need to have them

awarded responsibility allowances like the members of other professions owing to the fact that they considered their profession as a challenging one. They called for provisions for overtime allowances taking into account that they worked for many long hours in comparison to the members of the other professions. Provisions for performance tokens was equally a way which teachers believed would aid improve their remuneration and motivate them to work harder to qualify for the tokens.

4.9.2 School facilities

The teachers argued that the school facilities affected their effectiveness in productivity owing to the fact that they determined the accessibility to a conducive environment requisite for the execution of their obligations and functions. The facilities equally dictated the ability of the learners to grasp and understand what they were taught in class thus it had a great influence on the working environment and the capacity of the learners to be receptive to the teachers.

This concurs with studies carried out by Ogari (2011) who found out that in instances of the under development of school facilities there were high incidences of teacher attrition attributed to de-motivation. This was a great factor which demoralized teachers and caused them to leave the service in pursuit of better employment opportunities. The study found out that the advent of new ministries and related public and private bodies had seen many teachers leave the profession and a closer enquiry showed that majority of them taught in rural schools which were ill equipped thus the co relation between lack of facilities and dissatisfaction leading to high attrition rates

All the teachers were equally in agreement that the presence of facilities enhanced their effectiveness in productivity by way of helping them teach better. All the teachers were in agreement that the facilities provide better working conditions. The

capacity of the facilities to increase teacher morale was evident from the responses brought forth by the sampled teachers. The responses from the sampled teachers were striking in that the teachers with higher levels of academic qualifications had few misgivings about presence of facilities in their schools and the capacity of the facilities to affect their effectiveness in productivity. This can be interpreted to mean that the inhibitions and perceptions about facilities affecting and influencing effectiveness in productivity in the teachers are more in the minds of the teachers and a change of attitude driven by exposure can thus change the tide.

This is in tandem with previous work by Schneider (2003) who noted that lack of school facilities can impede teacher effectiveness and student success. The quality of facilities has more of an effect on factors such as student attitudes toward school, self-esteem, security, comfort, and pro-social behaviour, which in turn affect learning and achievement. The above information shows a very close relationship between the physical environment and how well students and teachers perform in that environment.

The teachers suggested various ways in which school facilities can be improved on to enhance teacher effectiveness in productivity. They vouched for increased government funding to equip schools with better facilities. They argued for the forging of partnerships with sponsors and the donor community and having them fund school programmes for the enhancement of the facilities. The teachers equally called for the involvement of parents in the facility upgrade programmes whereby the parents are involved by way of having them contribute to the betterment of the school facilities.

4.9.3 Headteachers training in financial management

Most of the teachers disagreed that the headteachers were very financially supportive with very few agreeing to the position. The responses equally showed that most of the teachers did not consider the headteachers as to having the adequate financial skills requisite for their positions. Most of the teachers agreed that the head teachers took a keen interest in financial issues of the schools.

This identifies well with Adegbeile (2011) who noted that the success of any school programme depends very much on the way of the financial inputs are managed. He added that central purpose of the financial management is the raising of fund and ensuring that the funds so mobilized are utilized in the most effective and efficient manner. He further suggested that the way finances are managed in a school determine the effectiveness of teachers and subordinate staff as well as learners' achievements. This is in line with the prevailing situation in most of Kenyan public primary schools which have the challenge of relying on school managers who are not up to the task as regards the acquisition of the requisite financial skills.

The capacity of the head teachers to stand out as accountable and transparent in their financial management function was disputed by most of the teachers who disagreed with the attribute. Awareness of the attendance of financial management programmes by head teachers was not confirmed by a very significant number of teachers while some agreed that the headteachers attended financial management courses. Most of the teachers disagreed to the position of headteachers delegating financial role functions to members of the senior management cadres in the institutions.

This is in line with previous work by Wanjau (2008) who also noted that the teachers did not see enough financial support from the principal when there was need for it. He attributed this to inadequate financial skills among the head teachers. This concurs

with previous works by Simatwa (2012) who argued that the head teachers had an immense obligation to fulfill the requirements of an office that they were least suited for attributed to lack of adequate managerial skills occasioned by lack of the requisite training. This exposed the institutions to the risk of inept management. The practice has been identified as a key demotivating factor to many teachers hampering their effectiveness in productivity.

4.9.4 Class size

The response showed that most of the teachers considered class size as a factor which affected their effectiveness in productivity. The teachers argued that small classes were manageable in terms of control, effective supervision, and ability to give individual attention to the learners. Most of the teachers equally disagreed with the attribute of identifying the class sizes as normal. They considered the classes as large. Most of the teachers equally disagreed to the fact of having the capacity to attend to pupils' individual needs. The teachers were of the opinion that their schools did not have enough teaching and learning materials as it was evident from most of the teachers and they attested to the fact that the class sizes made the teachers ineffective with most of them concurring.

This identifies with previous works by Scafidi, (2007) who attested to the fact that smaller classes have been found more effective when instructional goals involve higher level cognitive skills including application, analysis, and synthesis. Smaller classes provide for greater contact between students and teachers which appears to be most needed for students with low motivation, those with little knowledge of the subject matter, or those who have difficulty grasping conceptual material. Smaller classes are also more effective than large ones in affecting student attitudes. In sum,

the optimal size of a class depends on the instructional goals being pursued. The main advantage smaller classes have over larger ones is that they provide students with greater opportunities for interaction with subject matter, with the teacher and with one another.

The teachers' position identifies well with that of the head teachers who attested to the class sizes being large. They equally disagreed to the capacity of the teachers in their schools to attend to pupils' individual needs. They had a feeling that their schools did not have enough learning and teaching materials for the pupils and they confirmed that the class sizes in their schools owing to their large sizes made the teachers ineffective.

This is in line with studies by Okach (2011) who found out that class size had a major impact on teacher motivation and morale. He argued that in instances of very large classes the teachers had the challenge of handling many learners especially so in the primary school age children. This caused them a lot of pressure in terms of work load taking into account that the primary school age needed a lot of attention in terms of mentorship and tutelage as they were young and restless. This concurred with studies carried out by Maingi (2012) who attested to the fact that academic performance in all spheres was heavily influenced by class size which determined the capacity of the teacher to ably deliver their mandates.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The following chapter presents a summary of the findings made from the study, conclusions drawn from the study and the recommendations for positive action made by the study. It finally gives suggestions for further research.

The study sought to find out the social economic factors influencing teachers' effectiveness in productivity in productivity in Gatari Division, Murang'a County, Kenya. The objectives that guided the study were: remuneration, school facilities, level of training in headteachers' financial management and class size and their influence on teachers' effectiveness in productivity.

5.2 Summary of the study findings

5.2.1 Remuneration on teachers' effectiveness in productivity

The study found out that most of the teachers considered the remuneration levels as not adequate to ensure optimum productivity. This was by way of 90% of the teachers agreeing that remuneration affects effectiveness in productivity. This was a high percentage taking into account that only 10% of the teachers felt that remuneration had no impact on their productivity. The extent to which remuneration affected the teachers' effectiveness in productivity was 22% to a moderate extent, 60% to a great extent and 18% to a very great extent. The teachers decried the fact that they had to engage in side jobs and businesses to supplement their incomes owing to the low remuneration levels. They argued that this greatly impaired their effectiveness in

productivity as they did not have the capacity to give undivided attention to their professional callings and obligations to the pupils.

5.2.2 School facilities on teachers' effectiveness in productivity

The study found out that most of the teachers considered the facilities present in their schools as inadequate to assure them conducive environments to effectively deliver their core obligations in line with their professional mandates. They considered the facilities as not having the capacity to ensure optimum effectiveness in productivity on their part. The teachers were of the opinion that school facilities affected their effectiveness in productivity with 93% of the teachers confirming and agreeing to it. The teachers confirmed that the extent to which school facilities affected their effectiveness in productivity was to a moderate extent at 17%, to a great extent at 68% and to a very great extent at 15%. The teachers' position was equally shared by the headteachers and the District Quality Assurance Officer who all confirmed that many schools were heavily constrained in terms of capacity and facilities to utilize to ensure effectiveness in productivity on the part of the teachers. The study thus considered school facilities as a factor that greatly hindered teacher effectiveness in productivity.

5.2.3 Headteachers financial management training on teachers' effectiveness in productivity

Most of the teachers considered the headteachers as not having the requisite training in financial management which was up to the required levels and standards to ensure prudent management of the institutions and a conducive environment to guarantee effective delivery on the part of the teachers. The teachers were of the opinion that headteachers training in financial management affected their effectiveness in productivity with 21% agreeing while 79% were of the opinion that it did not. The

extent to which teachers believed that headteachers' training in financial management affected their productivity was to a moderate extent at 13%, to great extent at 30% and to a very great extent at 57%. On the other hand the headteachers considered themselves to have the skills requisite for running and manning the institutions which was a heavy contrast to the position of the teachers and District Quality Assurance Officer who equally considered the headteachers training in financial management as very wanting and not to the required standards to effectively manage the physical, human and financial resources in the institutions.

5.2.4 Class size on teachers' effectiveness in productivity

Most of the teachers considered the class sizes as large and not conducive for effective management in terms of control, individual attention to the learners and effectiveness in productivity with regard to handing out assignments and marking them. The teachers affirmed that class size affected their effectiveness in productivity with 92% of them agreeing to it while 8% were of the opinion that it did not. The extent to which the teachers considered class size as a factor affecting their effectiveness in productivity was to a moderate extent at 21%, to a great extent at 43% and to a very small extent at 36%. The headteachers concurred with the position of the teachers when they attested to the class sizes being large and a constraint in terms of management. Quality Assurance Officer equally confirmed that the average class size in the district was large and greatly impaired the teachers' capacities in terms of being effective. The study thus considered class size as a factor impairing teacher effectiveness in productivity.

5.3 Conclusions of the study

The study had the following conclusions:

The study concluded that remuneration levels were a critical factor which heavily constrained the teachers in terms of their capacities of being effective and having an assured capacity to optimally meet their obligations in terms of delivery at work. This is because the teachers spent most of their times thinking about means of how to supplement their incomes owing to inadequacies at the expense of researching and planning for their professional activities. This was thus confirmed as a critical factor heavily constraining and impairing teacher effectiveness in productivity.

The study concluded that school facilities in most institutions in the division were inadequate. This was a factor which came out strongly as heavily impacting negatively on the capacity of the teachers to be effective in their core duties. It is a factor beyond the capacity of the teachers and they are left to just manage with the situations as they are and innovate on how to meet the capacity constraints and realize their effectiveness in productivity. This is a challenge on the part of the teachers in that instead of concentrating and working towards achieving their professional obligations, they were left to innovate and think outside the box as to how to meet the shortfalls in capacities.

The study concluded that the headteachers' training in financial management was wanting and not up to the requisite standards. This was a factor which constrained the teachers in terms of lacking support from the headteachers in the financial aspects of running and managing the academic programmes. The headteachers were not transparent and accountable in financial management. Failure to delegate to senior management in the institutions on financial role functions equally impaired the teachers' capacity rendering them ineffective.

The study concluded that class sizes in the division were large thus heavily stretching the teachers to the maximum. This caused them to have the challenge of handling many learners leading to situations whereby the offering of individual attention was a handicap and adequate supervision and guidance to the learners was not possible. This is a factor which comes to the fore as heavily constraining and limiting the teachers' capacities and effectiveness in productivity.

5.4 Recommendations of the study

The study recommended

That the teachers remuneration levels should be reviewed by the government with an aim of motivating their performance to enhance their effectiveness in productivity. The provision for responsibility allowances by the treasury will make teachers a more committed lot taking into account that teaching is a very challenging profession and it is a calling which is not for the faint-hearted. The teachers will take pride like other professionals once they realize that their efforts are recognized because many at times they go out of their way and sacrifice for the wellbeing of the learners under their charge. Motivation in the form of performance tokens paid to teachers whose classes excel in the national examination by the government and other stakeholders in the education sector would also serve as a way of pegging remuneration on performance. This would greatly motivate teachers to go an extra mile and work hard to realize the tokens and take pride in their achievements;

That the government should invest in more infrastructures to cater for the growing numbers of learners nationally. The investment in teaching and learning materials in the name of curriculum reference books will ensure that the teachers are not constrained with regard to provision for facilities and infrastructure requisite for their

delivery at work. This will see to it that they are motivated to work and deliver their obligations in line with their professional calling. The putting in place of facilities by government may not be realistic owing to budgetary constraints. This call for the involvement of private sector participation in a structured manner to ensure that facilities are in place and the teachers can effectively perform their functions.

That the Ministry of Education should strive to ensure that financial management courses are organized for the headteachers to equip them with the skills requisite for handling and performing the functions expected of their offices. The Ministry of Education should equally put in place provisions to see to it that before one is appointed into a position of responsibility as the headteacher of a school, he has the requisite financial management training. This will ensure sound management in the institutions and inadequacies attributed to ill equipment of the headteachers in terms of training will be taken care of. Regular refresher courses by the Ministry of Education should equally be organized to guarantee the headteachers of skills requisite for their positions. This will go a long way in enhancing good management of physical, human and financial resources in the institutions and ensuring teacher effectiveness in productivity.

That the Ministry of Education should strive to ensure that adequate staffing levels are achieved and capacity in terms of the requisite infrastructural development is realized. This will ensure that the optimum class sizes are in place for effective delivery of the teachers. This is because very large classes impair the teachers' capacities and the teaching and learning function may not be as efficient as it should be. The staffing levels can be taken care of by way of having the exchequer appropriating bigger budgetary allocation to teacher recruitment as this is an investment for posterity as opposed to some other recurrent expenditure which does not add value to the national

economic mainstay. The involvement of the private sector participation, donor community, religious bodies and local communities would see to it that the infrastructural constraints are taken care of to realize optimum class sizes.

5.5 Suggestion for further studies

The study suggests that a similar study with a bigger scope like a county wide survey should be carried out to find out if the circumstances in Gatari division apply to other parts of Murang'a County.

The study also recommends that a study on personal financial literacy on the part of the teachers in ensuring effectiveness in productivity in productivity should be carried out. This is with a view of finding out how the management of personal finances affects teachers' productivity.

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APPENDIX I

INTRODUCTION LETTER

Wachira, David Warui
P.O Box 291,
Mukurwe-ini
Cell phone: 0721305078

To

Dear Sir or Madam,

REF: REQUEST FOR PARTICIPATION IN RESEARCH STUDY

I am a final year Master of Education student in Nairobi University. I am carrying out a study on the socio-economic factors influencing teachers' effectiveness in Gatari Division, Murang'a County.

I will appreciate if you could take part in the study. Your identity will be treated with utmost confidentiality. Your timely response will be highly appreciated.

Yours faithfully,

Wachira, David Warui

APPENDIX 2

QUESTIONNAIRE FOR HEADTEACHERS

The purpose of this questionnaire is to gather information on your views as regards socio-economic factors influencing teachers' effectiveness in productivity. Your response will be highly appreciated. Please do not indicate the name of the school.

Instructions

Please respond to the questions as accurately and as honest as possible and tick (✓) one response as appropriate or fill the space provided.

Section A: Demographic information

1. What is your gender? Male () Female ()
2. What is your age (in years) Below 25 years () 25- 50 years ()
Above 50 years ()
3. What is your education level? P1 Certificate () Diploma () Higher diploma ()
Bachelors' degree () Master degree () Any other (specify).....
4. For how long have you worked? (in years) 1-10 () 11- 20 () 21-30 () 31-40 ()

Section B: Personal traits

5. How would you describe yourself as a teacher?
Highly effective () Effective () Moderately effective () Ineffective ()
Very ineffective ()

Section B: Remuneration

6. Does the level of remuneration affect the teachers' effectiveness? Yes () No ()

Explain your answer.....

7. Kindly indicate your level of agreement with the following statements as regards remuneration levels where Strongly Agree = SA, Agree = A, Undecided = U, Disagree = D and Strongly Disagree = SDA

Statement	SA	A	U	DA	SDA
Salary affects teacher productivity	5	4	3	2	1
Salary has no effect on teachers	5	4	3	2	1
High salary increase teacher morale	5	4	3	2	1
High salary reduced teacher turnover	5	4	3	2	1

8. To what extent does the remuneration affect teachers' effectiveness?

Very great extent () Great extent () Moderate extent () Small extent () Very small extent ()

9. Kindly suggest three ways in which teacher remuneration can be improved so as to improve teachers' effectiveness

.....

Section C: School facilities

10. Do you think that facilities in the school affect teacher effectiveness? Yes ()

No ()

Explain your answer.....

11. Kindly indicate your level of agreement with the following statements as regards school facilities

Statement	SA	A	U	DA	SDA
There are enough facilities in my school	5	4	3	2	1
Facilities help teachers teach better	5	4	3	2	1
Facilities provide better working conditions	5	4	3	2	1
Facilities increases teacher morale	5	4	3	2	1

12. To what extent do school facilities affect teachers' effectiveness?

Very great extent () Great extent () Moderate extent () Small extent () Very small extent ()

13. Suggest three ways in which school facilities can be improved so as to improve teachers' effectiveness

.....

Section D: Head teachers' training in financial management

14. Do you think that head teachers' training in financial management affects teacher effectiveness? Yes () No ()

Explain your answer.....

15. Kindly indicate your level of agreement with the following statements as far as the head teachers' training in financial management is concerned where Strongly Agree = SA, Agree = A, Undecided = U, Disagree = D and Strongly Disagree = SDA

Statement	SA	A	U	DA	SDA
Head teacher is very financially supportive	5	4	3	2	1
Head teacher has adequate financial skills	5	4	3	2	1
Head teacher takes interest in financial issues in the school	5	4	3	2	1
Head teacher shows transparency, accountability in financial management	5	4	3	2	1
Head teacher attends courses on financial management	5	4	3	2	1
Head teacher delegates financial role functions to senior management	5	4	3	2	1

16. To what extent does head teachers' training in financial management affect teachers' effectiveness?

Very great extent () Great extent () Moderate extent () Small extent () Very small extent ()

17. Suggest three ways in which head teachers' training in financial management can be improved so as to improve teachers' effectiveness

.....

Section E: Class size

18. In your own opinion, does class size in the school affect teacher effectiveness?

Yes () No ()

Explain your answer.....

19. Kindly indicate your level of agreement with the following statements as far as the class sizes in your school are concerned where Strongly Agree = SA, Agree = A, Undecided = U, Disagree = D and Strongly Disagree = SDA

Statement	SA	A	U	D	SDA
The class size is normal (not too big and not too small)	5	4	3	2	1
The teachers in my school attend to pupils' individual needs	5	4	3	2	1
My school has enough learning materials for all the pupils	5	4	3	2	1
Class sizes in my school make the teachers ineffective	5	4	3	2	1

20. To what extent does class size affect teachers' effectiveness?

Very great extent () Great extent () Moderate extent () Small extent () Very small extent ()

21. Suggest three ways in which class size should be improved so as to improve teachers' effectiveness

.....

APPENDIX 3

QUESTIONNAIRE FOR TEACHERS

The purpose of this questionnaire is to gather information on your views as regards socio-economic factors influencing teachers' effectiveness in productivity. Your response will be highly appreciated. Please do not indicate the name of the school.

Instructions

Please respond to the questions as accurately and as honest as possible and tick (√) one response as appropriate or fill the space provided.

Section A: Demographic information

1. What is your gender? Male () Female ()

2. What is your age (in years) Below 25 years () 25- 50 years ()

Above 50 years ()

3. What is your education level? P1 Certificate () Diploma () Higher diploma ()
Bachelors' degree () Master degree () Any other (specify).....

4. For how long have you worked? (in years) 1-10 () 11- 20 () 21-30 () 31-40 ()

Section B: Personal traits

5. How would you describe yourself as a teacher?

Highly effective () Effective () Moderately effective () Ineffective ()

Very ineffective ()

Section B: Remuneration

6. Does the level of remuneration affect your effectiveness? Yes () No ()

Explain your answer.....

7. Kindly indicate your level of agreement with the following statements as regards remuneration levels where Strongly Agree = SA, Agree = A, Undecided = U, Disagree = D and Strongly Disagree = SDA

Statement	SA	A	U	DA	SDA
Remuneration affects my productivity	5	4	3	2	1
Remuneration has no effect on me	5	4	3	2	1
High remuneration increase my morale	5	4	3	2	1
High salary reduces turnover in my profession	5	4	3	2	1

8. To what extent does the remuneration affect your effectiveness?

Very great extent () Great extent () Moderate extent () Small extent () Very small extent ()

9. Kindly suggest three ways in which teacher remuneration can be improved so as to improve your effectiveness

.....

Section C: School facilities

10. Do you think that facilities in the school affect teacher effectiveness? Yes() No()

Explain your answer.....

11. Kindly indicate your level of agreement with the following statements as regards school facilities

Statement	SA	A	U	DA	SDA
There are enough facilities in our school	5	4	3	2	1
Facilities help teachers teach better	5	4	3	2	1
Facilities provide better working conditions	5	4	3	2	1
Facilities increases teacher morale	5	4	3	2	1

12. To what extent do school facilities affect teachers' effectiveness?

Very great extent () Great extent () Moderate extent () Small extent () Very small extent ()

13. Suggest three ways in which school facilities can be improved so as to improve teachers' effectiveness

.....

Section D: Head teachers' training in financial management

14. Do you think that head teachers' training in financial management affects teacher effectiveness?

Yes () No ()

Explain your answer.....

15. Kindly indicate your level of agreement with the following statements as far as the head teachers' training in financial management is concerned where Strongly Agree = SA, Agree = A, Undecided = U, Disagree = D and Strongly Disagree = SDA

Statement	SA	A	U	DA	SDA
Our head teacher is very financially supportive	5	4	3	2	1
Our head teacher has adequate financial skills	5	4	3	2	1
Our head teacher takes interest in financial issues in the school	5	4	3	2	1
Our head teacher shows transparency, accountability in financial management	5	4	3	2	1
Our head teacher attends courses on financial management	5	4	3	2	1
Our head teacher delegates financial role functions to senior management	5	4	3	2	1

16. To what extent does head teachers' training in financial management affect teachers' effectiveness?

Very great extent () Great extent () Moderate extent () Small extent () Very small extent ()

17. Suggest three ways in which head teachers' training in financial management can be improved so as to improve teachers' effectiveness

.....

Section E: Class size

18. In your own opinion, does class size in the school affect teacher effectiveness?

Yes () No ()

Explain your answer.....

19. Kindly indicate your level of agreement with the following statements as far as the class sizes in your school are concerned where Strongly Agree = SA, Agree = A, Undecided = U, Disagree = D and Strongly Disagree = SDA

Statement	SA	A	U	D	SDA
The class size is normal (not too big and not too small)	5	4	3	2	1
I can attend to pupils' individual needs	5	4	3	2	1
Learning materials are enough for all the pupils	5	4	3	2	1
Class size is making me ineffective	5	4	3	2	1

20. To what extent does class size affect teachers' effectiveness?

Very great extent () Great extent () Moderate extent () Small extent () Very small extent ()

21. Suggest three ways in which class size should be improved so as to improve teachers' effectiveness

.....

APPENDIX 4: INTERVIEW SCHEDULE FOR THE DISTRICT QUALITY ASSURANCE OFFICER

1. How long have you served the district as the education officer?
2. Do you regularly interact with the teachers in the district?
3. Does your office have mechanisms in place to evaluate the productivity of the teachers in the district?
4. How would you rate the teachers with regard to their productivity?
5. Do the socio-economic factors impact on the productivity of the teachers in the district?
6. Do the remuneration levels affect the productivity of the teachers in your district?
7. Would you consider the current remuneration levels as adequate for ensuring the effective and optimum productivity of the teachers?
8. Do the primary schools in your district have enough facilities to ensure adequate productivity of the teachers?
9. Have there been instances of impaired productivity owing to lack of facilities?
10. Are the head teachers in the district adequately trained to assure them of the requisite financial management practices to assure the institutions of sound management skills?
11. Have there been instances of ineffectiveness in the teachers owing to inept financial management skills in the head teachers?
12. What are the average sizes of the classes in your district?
13. Would you consider the class sizes as adequate to be handled by the teachers in your district?
14. How would the productivity of the teachers in the district be improved on to assure it better results in the academic performance?