INFLUENCE OF TEACHER WORKLOAD ON PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN KIAMBU SUB COUNTY

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DECLARATION

This research project is my original work and has not been presented for the award of a degree in this university or any other institution of higher learning for examination.

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This project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

This work is dedicated to my parents Nancy and the late Boniface Wahome for instilling in me the values of hard work and resilience since childhood.

To my late elder sister, Rosemary whom I miss every single day.

To my husband Benson and our four boys ;Eddie, Wahome, Miano and Ralph, brought to me by God's beautiful grace to partner with me on a vibrant journey, full of life.

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To all those who contributed directly or indirectly to the accomplishment of this project, may God bless you abundantly.

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ABBREVIATIONS AND ACRONYMS

BOG	Board of Governors
CATs	Continuous Assessment Tests
CBE	Curriculum Based Establishment
EFA	Education for All
KCPE	Kenya Certificate of Primary Examination
KCSE	Kenya Certificate of Secondary Examination
OECD	Organization for Economic Cooperation and Development
TSC	Teachers Service Commission
UNESCO	United National Education Scientific and Cultural Organization

ABSTRACT

Employee performance is an important building block of an organization and factors which lay the foundation for high performance must be analyzed by the organization environment. For an organization to operate efficiently and effectively, it must know what its workload is. Assessing, predicting and adjusting workload can help achieve an evenly distributed manageable workload and also determine the resources needed. The objective of this study was to establish the influence of teacher workload on performance in public secondary schools in Kiambu Sub-county. The study adopted a descriptive survey design. The population comprised 19 public secondary schools that are registered for KCSE. Stratified random sampling was used to select a sample of 88 teachers from all the schools The sample from each school was obtained using proportional technique in reference to the number of teachers per strata. The study used questionnaires to collect data on workload while secondary data on performance was obtained from the County Education Commissioner's office in Kiambu. Data was analysed using both descriptive and inferential statistics. Pearson correlation analysis showed there was no statistically significant correlation between workload and performance. Overall, heavy teacher workload is related to low performance. The study also established that there is a shortage of teachers in the sub-county since. student-teacher ratio is much higher than the recommended. The study concluded that lack of time to closely interact with their students in class leads to teachers missing out on crucial instructional practices like proper planning, giving individualized attention to weak students as well as adequate assessment and assessment evaluation. The study recommends that more teachers should be employed to especially in sub-county schools where student teacher ratio is very high. School managers must regularly supervise teachers' work to ensure the curriculum is being implemented. Further research should be done on private secondary schools in the county and in other East African countries to give more insights on the nature of the relationship between the variables in the study.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The advent of global organizations, accelerated competition and modern technology, have forced companies to re-look at how performance is managed with specific reference to human resources. Employees are the human capital which contributes to the success and development of a company to a great extent. Thus, these days, companies do not see them only as factors of production from the classical perspective, but have started to value them as stakeholders and partners with whom long-term goals are achieved together (Alla, Hellena & Simona, 2008). Employee performance is an important building block of an organization and factors which lay the foundation for high performance must be analyzed by the organization environment. High performance is a step towards the achievement of organizational goals and tasks (Suhartini, 1995).

For an organization to operate efficiently and effectively, it must know what its workload is. Workload that is set too high or too low can negatively affect the overall performance. Assessing, predicting and adjusting workload can help achieve an evenly distributed manageable workload and also determine the resources needed (Dasgupta, 2013). Workload is an opportunity for the employees to learn and prosper more quickly. As employees do their jobs they gain more work experience, which enhance their exposure. It is also viewed that employees who have enough work to do remain more active while employees who work less become lazy (Perveen et al., 2011). Workload pressure can be positive leading to increased productivity. Underutilization of human skills or failing to reach the full potential of the employees is also one cause to increase stress. Employees

who have the capabilities to perform a job enjoy workload. However, when this pressure becomes excessive it has negative impact (Shah et al., 2011).

This study is anchored on the Human Capital Theory proposed by Schultz (1961) and developed extensively by Becker (1964) who classified expenditures on human capital as investment rather than consumption. Human capital can be defined as knowledge, skills, attitudes, aptitudes, and other acquired traits contributing to production. The theory holds that if employees are to perform optimally they need to feel valued by having good working conditions, have manageable workload, which will lead to improved effectiveness and better organizational performance.

1.1.1 Workload

The term workload can be defined as the hypothetical relationship between a group or individual human operator and task demands (Riley, Lyall & Wiener, 1994).Workload can be characterized as a mental construct that reflects the mental strain resulting from performing a task under specific environmental and operational conditions, coupled with the capability of the operator to respond to those demands. Workload is not only task specific, but also person specific. It involves individual capacities and motivation to perform a task. Workload is also referred to as the total energy output of a system, particularly of a person performing strenuous task overtime.

Allen (1996) defined workload as the total amount of time a faculty member devotes to activities like teaching, research, administration, and community services. Jex (2002) defines workload as the amount and the quality of work needed to be done by a person in a certain time period. Workload in generally defined as the extent of the processing

capacity that is expended during the performance of a task and thus involves the interaction between resource supply and task demand (Young et al., 2008).This definition is supported by (DiDomenico and Nassbaum, 2008) who state that workload is determined by the relationship between task demands, the circumstances under which that task takes place and the perceptions, actions, skills and knowledge of the individual performing the task. The task demands may include physical actions, cognitive tasks and/or a variety of other factors. Workload can also be defined the expenditure incurred by a person, given their capacities (resources), while achieving a particular level of performance on a particular task with certain demands (Hart & Staveland, 1988).

1.1.2 Employee Performance

Davidson (2004) asserts that employees are the most valuable assets a corporate has and that they are the catalysts of any organization. The competitive advantage of any organization in a global economy depends primarily on how well its human resource is managed. Identifying and selecting the best employees for particular jobs is an important task for organizations. High-performing workers are perfect since employee performance directly impacts the organization's bottom line. Poor performers can cost their employer money through the loss of production and in the costs of turnover and training (Cooper and Cartwright, 1994).

Employee performance is also defined as a combined result of effort, ability, and perception of tasks. High performance is a step towards the achievement of organizational goals and tasks. Employee performance is an important building block of an organization and factors which lay the foundation for high performance must be

analyzed by the organizations (Suhartini, 1995). Since every organization cannot progress by one or two individual's effort, it is collective effort of all the members of the organization. Performance is a major multidimensional construct aimed to achieve results and has a strong link with planned goals of an organization (Abbas and Yaqoob, 2009). Performance is the key multi character factor intended to attain outcomes which has a major connection with planned objectives of the organization (Sabir et al. 2012).

1.1.3 Teachers in Public Secondary Schools in Kiambu Sub-County

The government of Kenya through subsidized secondary education has made remarkable efforts to increase enrolment in schools so as to meet education for all (EFA) goals by the year 2015 (Simatwa 2011). Provision of quality secondary education is therefore important in generating the opportunities and benefits of social and economic development (Onsumu, Muthaka, Ngware & Kosembei, 2006). One of the indicators of quality of education being provided is cognitive achievement of learners (United Nations Educational, Scientific and Cultural Organization (UNESCO, 2005).

Kiambu Sub-County is in Kiambu County, Kenya. There are 28 public secondary schools in the Sub-County. The schools are of different types and sizes namely: Extra County, County and Sub-County Schools. 19 schools are registered for KCSE examination. Out of these there are 4 extra-county, 1 county and 14 Sub-county schools. The 19 schools have a total of 439 teachers (167 male and 272 female) employed by the TSC.

The total number of teachers in a school depends on the size and population of the school. Most Sub-county schools have an average number of students per class as 60, while county and extra county schools have an average of 45 students per class.

Performance in secondary schools is mainly measured by the grades students score in KCSE examination. The grades range from grade A with 12 points to grade E with 1 point. Government policy encourages vertical teaching where one teacher takes up a class in form one and takes them through the four year course. This means that the students' performance in KCSE can be directly attributed to the teacher's performance in class. For example if a class got a mean score of 8.1 in English, this mean is derived from adding all the students marks in that subject and then dividing the figure by the number of students in that class. Similarly, the school's mean score is derived by adding all the mean scores of all individual subjects and dividing the figure by the number of subjects offered. Therefore, the higher the students score in a subject, the higher the subject's mean, and the higher the school's overall mean score. Teachers cannot therefore be dissociated from the schools they teach and academic results of schools and consequently, it would be logical to use students' assessment results as a basis for judging the performance of teachers.

1.2 Research Problem

Performance of any organization largely depends on the performance of the employees. Organizations are therefore seeking to have better skilled and creative employees in order to improve efficiency and performance as well as avoid wasteful investment (Afshan et al. 2013). Workload has significant impact on the performance of employees. For high performance, workload of employees must be according to their abilities and potential to cope with stress. Extensive high workload and extremely low workload correlate to low performance. It is therefore imperative for organizations to create a culture where optimum workload-productivity correlation exists (Shah et al. 2011). Based on the above

discussions, we can say there exists some relationship between workload and performance.

The freezing of the hiring of teachers to public schools by the Kenyan government in 1998 created a teacher shortage in many secondary schools leading to increased workload. Enrolment at secondary level has been considerably expanding since the introduction of Free Primary Education in 2003 and later the Subsidized Secondary Education since 2008. It has been noted that despite the increase in enrolment, little has been done, if any to bring all schools to the same level in terms of availability of adequate teaching and learning resources, favourable working conditions for teachers both in rural and urban schools, favourable teacher-student ratio and teacher workload. Secondary teacher staffing needs in Kenya are determined on the Curriculum Based Establishment (CBE).A school's CBE is based on the teachers' area of specialization, type and number of subjects offered by a school and the weekly number of lessons that are supposed to be taught in a subject. The recommended weekly workload for a secondary teacher is a maximum of 27 lessons. In some schools and in some subjects, this workload is higher while in others it may be lower depending on the number of teachers available. In Kiambu Sub-county, most secondary schools have posted poor KCSE results in the last 5 years. The KCSE mean score for 2010 to 2014 were 5.0341, 5.1963, 5.231, 5.141 and 5.125 respectively out of a possible mean score of 12.The 2014 KCSE analysis show that the top school had a mean score of 8.317 while the last school in the Sub-county had a mean score of 2.750 out of a possible 12. 15 of the 19 schools had a mean score of less than 5 or grade C- which is below average. 10 schools had a mean score of less than 4 or grade D+. Any grade below D+ is regarded as academic wastage.

A few studies have been done on the area of workload and performance both internationally and locally. In their study Shah et al. (2011) evaluated different motivational theories on the topic of workload and performance of employees. The study concluded that if an individual has low workload in relation to his abilities, he is under-utilized and his workload must be raised to an appropriate level. This will also give satisfaction to the individual and the organization will also gain optimum production. This study focused on Mcgregor's theory of motivation and employees' attitudes towards work. Nyawara (2011) did a study on workload and teacher performance in public primary schools in Kombewa Division Kisumu County. The study concluded that job overload negatively influences performance of teachers. The study was done on primary schools and not on secondary schools.

A study done by Tuitoek, Yambo and Adhanja (2015) on contributions of school based factors on student's performance in public secondary schools in Eldoret West Sub-county revealed that textbooks and modern laboratories are key to academic performance. Kimani, Kara and Njagi (2013) did a study on teacher factors affecting students' academic achievement in secondary schools in Nyandarua County. The study concluded that teachers' job group, syllabus coverage and weekly workload among other factors affected the students' performance. The studies above did not relate workload to performance, therefore, to the researcher's knowledge, there is no empirical study that has been done on the influence of teacher workload on performance in public secondary schools in Kiambu Sub- County. This study therefore seeks to fill that gap by answering the research question; what is the influence of teacher workload on KCSE performance in public secondary schools in Kiambu Sub- County?

1.3 Research Objective

To establish the influence of teacher workload on performance in Public Secondary Schools in Kiambu Sub- county.

1.4 The Value of the Study

The findings of this study will serve as a reference material for public secondary schools in Kenya in general and Kiambu Sub-county in particular in providing a better understanding of the relationship that exists between workload and performance from the classroom level to the county level. Educational stakeholders at the county could use it as a basis for improving quality in order to register more quality grades and less wastage in KCSE.

Policy makers in the Kenya education sector may benefit from the findings of this study. It will guide them in coming up with policies and also review the existing ones to see how much they have contributed to the quality of secondary education in the country. This may further provide information on how to improve effectiveness, identify training needs, and also set performance standards in secondary schools.

The knowledge generated by this study would enable other researchers improve and develop a better understanding of workload and performance. It will add to the existing literature in the area of study. It may also form a basis for further research to explore other factors that affect academic achievement and quality in schools in other parts of the country.

1.5 Chapter Summary

In this chapter, the researcher gave the background of the study which outlined how workload and employee performance are important in achieving organizational goals. The chapter also briefly defined the concepts of workload, performance as well as outlined some brief information on teachers in public secondary schools in Kiambu sub-county. The research problem and objectives were also outlined in this chapter as well as the significance of the study, which justified why the researcher was carrying out the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter begins with discussing the theoretical foundation of the study and then highlights the review of literature on: factors affecting workload, performance measures, performance measures in learning institutions and workload and performance.

2.2 Theoretical Foundation

This study is anchored on Human Capital theory proposed by Schultz in 1961 and developed extensively by Becker (1964) who classified expenditures on human capital as investment rather than consumption. Human capital can be defined as knowledge, skills, attitudes, aptitudes, and other professional initiatives in order to increase values and social assets of an employee which will lead to the employees' satisfaction and performance and eventually on organizational performance. Human capital theory suggests that education or training raises the productivity of workers by imparting useful knowledge and skills, hence raising workers' future income by increasing their lifetime earnings (Becker, 1964). In Becker's view, human capital is similar to "physical means of production", for example, factories and machines: one can invest in human capital (via education, training) and one's outputs depend partly on the rate of return on the human capital one owns. Thus, human capital is a means of production, into which additional investment yields additional output. Human capital is substitutable, but not transferable like land, labour, or fixed capital.

The emphasis on human capital in organizations reflects that market value depends less on tangible resources and more on intangible ones, particularly human resources. The Organization for Economic Cooperation and Development (OECD;2001) describes human capital as the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being. This theory holds that if employees are to perform optimally, organizations must invest in their well-being, provide adequate resources and create a supporting environment where knowledge can be created, shared and applied. This will lead to increased effectiveness and overall organizational performance.

2.3 Factors Affecting Workload

Workload factors are the main task characteristics that influence human performance. These factors can be defined as how an operator completes the required work (i.e. capacities) and how the operator understands the task (i.e. task demand) to meet the operating system's demand. Task demand is the proportion between the time required (TR) to do a certain task and the time available (TA) for workers (Wickens et al., 2004). Workload is a combination between the available resources of an operating system, task demand, and workers' capabilities. Workload is divided into two main parts: mental workload (that is, perception, monitoring and decision-making) and physical workload (that is, lifting parts, pushing and material handling). In a dual-task situation, the physical loads could place stress on cognitive task performance. Thus, it is necessary to find a balance between available resources (system and operator capabilities) and task requirements in order to avoid degradation in both worker and system responses.

Indeed, the task workload that includes physical and mental workload is more difficult to control than one that requires either physical demand or mental effort but not both. For example, in combination the levels of physical workload should not exceed the individual's capacity and, similarly, the mental workload should not be greater than the individual's attention resource capacity (Wickens, 2004). The traditional concept of workload, which can be broken down into physical and mental components has however become obsolete, and a broader approach encompassing the complexity of the work activity performed in a dynamic environment is needed. Workload must be approached holistically, that is, through activity analysis that takes into account the overall activity seen as the result of a combination of factors inherent in the work situation (Fournier, Montrenuil, Brun, Bilodeau & Villa 2011). From this perspective, making changes in the workload means making changes in the working conditions. Thus, not only must the individual's overall situation and work activity be taken into account, but also the organizational environment in which he or she works daily.

In day-to-day work realities there are certain factors that appear to take different forms and to impact the workload in different ways. Changes in workstation design, particularly in how work is organized, appear to have an impact on workload (Sprigg & Jackson, 2006). The new forms of work organization are leading to an expansion of tasks, which translates into an increased workload, especially given the lack of sufficient resources to perform the tasks. Moreover, Ballet and Kelchtermans (as cited in Fournier et al., 2011) have observed a growing gap between, on the one hand, the tasks and expectations set by individuals who are outside the work reality and, on the other hand, the skills actually needed to perform the work. This phenomenon is evidenced in, among other things, the

reduced impact that workers have on their own job definitions and the increased number of tasks to be performed due to the lack of adequate resources (Ballet & Kelchtermans, 2009). For example, in a private school in Belgium, teachers are required to use a log as a tool supposedly to help them identify solutions to problems they encounter. The quality of the log becomes an informal criterion for qualifying as a good teacher. The teachers, on the other hand perceive the log as an insignificant administrative tool with no added value that simply intensifies their work.

A few studies have been done on factors affecting workload in different fields .Fournier et al. (2011) carried out a study on workload factors that have an impact on health and safety among customer service representatives. The respondents cited having too many responsibilities, frequent interruptions, lack of decision making autonomy, reduction of available resources to carry out their work and time constraints as the prevalent factors affecting their workload. Another study by Bahadori et al. (2014) looked at factors affecting Intensive Care Units Nursing Workload which they found to be: lack of clear responsibilities and authorities, performing unnecessary tasks, mismatch between the capacity of wards and the number of patients, and helping the students and newly employed staff. They concluded that clear responsibilities and authorities of nurses, use of new technologies and providing basic training for new nurses would decrease total nursing workload.

In a similar study on nurses experiences of non-patient factors affecting nursing workload, Fagerstrom and Vainikainen (2014) found that working conditions had a significant impact on workload, interruptions due to a nurse manager's organization of work also affected total workload. Supportive leadership style, the level of nurses'

autonomy and decision making were found to be factors that could decrease total nursing workload. The participants felt that they had a high level of self-awareness regarding their competence and therefore must be allowed to organize their own work. If they are unable to do so, they may not feel in control of their work, which increases total nursing workload.

2.4 Performance Measures

Hersey and Blanchard (1988) argue that performance has multiple meanings. For example, management scientists define performance as the degree to which actual results have met the expected standards and taking corrective measures if not. Marketers view performance in quantitative and qualitative terms. Sales revenue and inventory turnover are regarded as quantitative measures while qualitative measures include skills and perceived market share. The accountants on the other hand judge performance by how well a firm is achieving set standards in terms of profitability. Production and operation managers view performance in terms of minimizing production costs through wastage, idle time, average job lateness, average number of jobs waiting and average completion time.

Measurement is an important concept in performance management. It‘s the basis for providing and generating feedback. It identifies where things are going well to provide the foundations for building further success, and it indicates where things are not going so well, so that corrective action can be taken. All jobs produce outcomes; it is therefore often necessary to measure performance by reference to what outcomes have been attained in comparison with what outcomes were expected.

Good performance measures are aligned to the organization's strategies, are flexible-can be changed as needed, are timely and accurate are simple to understand and focused on improvement. It has also been suggested that good performance measures are SMART: the measure has a Specific purpose, it is Measurable, the defined targets have to be Achievable, the measure has to be Relevant and it must be Time phased, which means the value or outcomes are shown for a predefined and relevant period (Mathews, 2011).

A variety of taxonomies have been proposed to classify performance measures. A common distinction is between financial (or accounting) measures and non-financial (or operational) measures. Financial measures such as costs, profits and accounting returns have traditionally played a major role in measuring organizational performance, however, many believe that non-financial measures such as defect rates cycle time and productivity which tend to be more disaggregate and task specific than financial measures, are better at signaling the actions workers can take to improve overall performance (Ittner and Larcker, 2002). Johnson & Kaplan (as cited in Khan, Halabi and Sartorious, 2011) found that the basis of performance measurement should include non-financial measures such as quality, time of delivery, flexibility and innovation.

Non-financial performance measures focus more on a firm‘s long-term success, and factors such as customer satisfaction, internal business process efficiency, innovation and employee satisfaction lead to improved organizational and financial performance. An important characteristic of non-financial performance measures is that they positively affect future performance. Non-financial performance measures are also often considered as the process measures that should lead to good financial performance. Another related

argument is that firms often want to signal future perspectives to the market. During a crisis, for instance, firms want to signal that they will survive the crisis. Non-financial performance measures can be one possible way to signal good future perspectives.

The focus of this study will be on a number of non-financial performance measures for purposes of answering the research question as well as meeting the objectives. These include quality, productivity, efficiency, effectiveness and timeliness. Quality is the characteristic of products or services that bear an ability to satisfy the stated or implied needs. It is the degree to which a product or service meets customer requirements and expectations. It also addresses how well an employee or work unit performs the work. Productivity is a measure of how the individual, organization and industry converts input resources into goods and services that is the value added by the process divided by the value of the labour and capital consumed. It is the amount of units of a product or service that an employee handles in a defined timeframe.

The measure of employee work output can be used to measure the productivity of an employee. Efficiency is the ability to produce the desired outcomes by using as minimal resources as possible (are we doing things right?) It is the ratio of an employee's actual time to perform a particular task against the theoretical time needed to complete it. Effectiveness is the ability of employees to meet the desired objectives or target (are we doing the right thing?) Timeliness measures whether a unit of work was done correctly and on time. Criteria must be established to define what constitutes timeliness for a given unit of work. The criterion is usually based on customer requirements.

2.4.1 Performance Measures in Learning Institutions

Education is generally viewed as a panacea to the social and economic woes that ail any country. London's Department for Education and Employment (DFEE, 1997) in a paper titled "White Paper: Excellence in School" notes that economic and social disadvantage can only be overcome and equality of opportunity can only be a reality if very deliberate efforts are made to eliminate and never excuse under achievement in the most deprived parts of the country.

The quality of education is the main concern for institutions as well as students. It is believed that the improvement in this sector will create brains which will help conquer the world Excelling in this field can lead to better planning, implementation, and development procedures at macro level for effective usage of scarce resources and ultimately tackling the problem of poverty, corruption and other evils. Although quality of education is difficult to measure, student outcomes have often been used as the most objective criteria of evaluating it.

Effective schools are the means by which the vision of quality education can be attained. Levine and Lezotte (1990) and other effective schools movement commentators are in consensus that an effective school can be described as one where all the students master the intended curriculum. Eshiwani (1993) asserts that the quality of education is seen in terms of the number of students passing national examinations. The assertion that secondary grade test scores effectively accesses the quality of education by evaluating mastery of curriculum, assumes that the examinations administered are standard and have

adequately addresses the learners cognitive achievement at all levels i.e. knowledge, comprehension, application, analysis, synthesis and evaluation.

In education literature, pupil/teacher ratio is also regarded as a measure of school quality. It is an indicator for planning, and a low pupil/teacher ratio may give a better chance of contact with the teacher, hence better (quality) teaching or learning process. Despite the fact that information technological changes are occurring fast, teachers remain the most important resource for student instruction. A teacher is a person whose professional activity involves the transmission of knowledge attitudes and skills stipulated in a formal curriculum to students enrolled in an educational programme. A qualified and motivated teaching force is a prerequisite for higher achievement in students. Effective education requires qualified and motivated personnel, adequate learning facilities as well as motivated students who are ready to learn (Deolalikar, 1999).

Opportunity to learn and student time on task implies that teachers allocate a significant amount of classroom time to instruction in the essential curricular areas. One of the first prerequisites if students are to master certain curricular objectives and goals is to ensure that they spend time on them. Students must be actively engaged in whole-class or large group, teacher-directed, planned learning activity for a high percentage of classroom time. Time on task implies that each of the teachers in the school has a clear understanding of what the essential learner objectives are, grade by grade and subject by subject. The challenge in schools stems from the interruptions in the day-to-day flow of routines in the classroom which cause serious and significant detractions (Icharia, 2009).

Education efficiency, as a measure of performance in schools, can be looked at in two dimensions: the flow of students through the system with minimum wastage, and the quality of learning achieved. Wastage is manifested in the form of drop out and repetition rates, while quality of learning is determined by the inputs and outputs of the education system. Inputs include factors such as class size, qualification of teachers, facilities and years of schooling. Outputs refer to the learning achieved: knowledge, skills, behavior and attitudes-whether measured by tests, national examinations or otherwise. Education input determines output and outcomes through school variables such as teachers, textbooks and effective learning. Improving the efficiency in learning therefore implies improving the quality of school input in terms of curriculum, style of teaching, qualification of teachers and availability of instruction materials (*Education Indicators in Kenya*, n.d.*)*.

2.5 Workload and Employee Performance

The relationship between workload and performance is complex. It is not always the case that as workload increases performance decreases. Performance can be affected by workload being too high or too low Nachreiner (1995).Sustained low workload (under load) can lead to boredom, loss of situation awareness and reduced alertness. Also, as workload increases, performance may not decrease as the operator may have a strategy for handling task demands.

A number of studies have been done on the relationship between workload and performance. A study to examine the sudden changes in workload level was designed and carried out by Cox Fuenzalida in 2006. The purpose of study was to make direct comparison between sudden increase and decrease in workload situations. Results

indicated that performance was significantly impaired for both conditions .Findings suggested that either a sudden decrease (High to Medium) or increase (Low to Medium) workload could result in impaired performance. Furthermore, the study suggested that a sudden decrease may result in greater detrimental effects. Cox-Fuenzalida (2007) reported that workload affects and reduces the ability of workers. Generally, an increase in the task demand level may lead to a decrease in correct responses and an increase in response time. The study also found out that the high-task workload and task complexity are considered to be two of the most important aspects in reducing the quality of worker responses.

Overload workload increases operator errors in jobs that require both mental and physical workloads since the high physical workload leads to increase the arousal level. The relation between mental workload and performance is U-inverted as is the relation between arousal and performance (Young and Stanton 2002).He further states that physical activity supplies more blood to the brain so the amount of oxygen that is delivered to the brain also increases and improves and facilitates the information process. Therefore, task workload is a key determinant of human performance. It may include physical and/or cognitive components, and these can interact to influence operator performance.

The amount of load an employee has determines the effectiveness in performance. Studies carried out in Pennsylvania concluded that output is higher where employees have low workload (Atkinson, 1983). Johnstone (1993b) provided a snapshot of teachers' workload in schools within four Scottish regional authorities. The teachers maintained a workload diary for a week and completed an Occupational Stress Indicator questionnaire.

Over a typical week, teachers recorded an average of 42.5 hours of work. As expected, the main elements were teaching, preparation and marking. Meetings occupied almost as much time as paperwork in schools. 93% reported at least one occasion when they felt stressed during the survey week. Most reported between three and five such incidences. Significantly, the longer the hours worked, the more stress occasions were reported. Workload was the most frequent cause of stress.

Increased workload can improve short-term productivity, but it can increase long-term costs, as stress and illness among employees lead to poor judgments and low productivity. Generally, a high workload with two or more tasks is a primary cause for decreased performance. A shortage of labour causes the workload to increase per worker employed at work. Thus, each worker is expected to compensate for lack of additional workers. This results in decreasing level of quality of production (Cranwell-Ward & Abbey, 2005).

2.6 Chapter Summary

This chapter gave an overview of theoretical concepts related to the problem under study. These concepts were explained in detail and included; theoretical foundation of the study which outlined literature on human capital theory, existing literature on factors affecting workload as well as performance measures were discussed. The chapter also discussed specific performance measures in learning institutions. Finally, the researcher outlined several studies that have been done on the relationship between workload and employee performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the research design that was used for the study, the target population, the sample and the sampling procedure, the instruments for data collection and the methods that were used for data analysis.

3.2 Research Design

Descriptive survey research design was used for this study. Kothari (2003) describes descriptive survey design as a method used to collect detailed description of existing phenomena with the view of employing data to justify current conditions and practices or to make more intelligent plans for improving them. This design was the most appropriate in meeting the requirements of the research questions and objectives. The research adopted the use of well-structured questionnaires.

3.3 Target Population

The target population for this study was all 439 teachers (167 male and 272 female) from the 19 public secondary schools in Kiambu Sub-county.

3.4 Sampling and Sampling Procedure

The basic idea of sampling is, selecting some of the elements in a population, so that the same conclusions can be drawn about the entire population (Cooper and Schindler, 2003). A list of all the schools was obtained from the County Education Officer's office and a sample number that is proportional to size of the population was allocated. The

respondents for this study were therefore 88 teachers selected from all the 19 schools. This sample represented a 20% of the target population as shown in Table 3.1. A minimum of 2 teachers were selected per school through stratified random sampling based on their areas of specialization, that is, Sciences or Arts subjects. The sample from each stratum was obtained using proportional technique in reference to the number of teachers per strata (Kothari, 2004). Nyawara (2011) used the same sampling technique for a similar study.

Table 3.1 Sample Size

SCHOOL	NUMBER OF TEACHERS	SAMPLE (20%)
Kanunga	34	7
Senior Chief	42	8
Mwongoiya	16	3
Karuri	41	8
Muthurwa	16	3
St Joseph Gathanga	12	2
Gacharage	16	3
Kihara	23	5
Gachie	18	4
Wangunyu	16	3
Cianda	10	2
Loreto	44	9
Riara	19	4
Kiambu Township	16	3
Kiambu High	38	8
Ndumberi	17	3
Tinganga	20	4
St Anne's Lioki	21	4
Riabai	19	4
TOTAL	**439**	**88**

Source: County Education Office-Kiambu

3.5 Data Collection

The researcher used both primary and secondary sources of data. Self-administered questionnaires were used to collect the primary data on a drop and pick later basis. A letter of introduction was issued to the respondents explaining the purpose of the study. The researcher dropped all the questionnaires to the selected teachers in all the 19 schools and personally collected them later. The questionnaires had sections A and B with both closed and open ended questions. Section A had questions on the respondents' demographics while section B had questions on teacher workload. Questionnaires were appropriate because they provide high degree of data standardization and adoption of generalized information amongst the population. Secondary data was obtained from past published materials and review of documents from County Education Commissioner's office. This included KCSE analysis from 2012 to 2014, categories of schools in the Sub-county and the number of teachers per school.

3.6 Data Analysis

Data analysis is the process of inspecting, cleaning, transforming and modeling data with the goal of discovering useful information, making conclusions and supporting decision making. Data was analysed using descriptive and inferential statistics with the help of Statistical Package for Social Sciences (SPSS) software program. The data was summarized into tables of frequencies and percentages, mean scores and standard deviations. Further, Pearson product-moment correlation coefficient was used to determine the degree and direction of the two variables (workload and performance).The independent variable was overall teacher workload while the measure of performance, which was the dependent variable, was the KCSE average means score attained by each school for 3 years, from 2012 to 2014.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter covers the interpretation and presentation of the findings. The purpose of the study was to establish the influence of teacher workload on performance in Public Secondary Schools in Kiambu Sub-County. The study was conducted on all 19 public secondary schools in the area that are registered for KCSE examination. The study targeted 88 teachers selected from all the 19 schools. The respondents returned 75 questionnaires which was a response rate of 80%.

4.2 Biographic Data of the Respondents

This section sought information on teacher demographic characteristics in order to help in classifying them and further use the data to establish the relationship between the demographic characteristics and their performance. The data obtained from the teachers included age, gender, highest teaching professional qualification, years worked as a classroom teacher, area of specialization and their job group.

4.2.1 Age of the Respondents

The study sought to establish the age of the respondents; the data obtained is presented in the Table 4.1.

Table 4.1 Age of the Respondents

Age group	No of respondents	Percentage
Below 30 years	10	13.3
30 - 39 years	14	18.7
40 - 49 years	48	64.0
50 years and above	3	4.0
Total	**75**	**100**

Table 4.1 shows that about that majority (64%) of the respondents were in the 40- years age group, 18.7% were between 30-39years, 13.3% were below 30 years while only 4.0% were 50 years and above. This indicates that majority of the teachers in Kiambu sub-county are middle-aged.

4.2.2 Gender of the Respondents

Further the study sought to establish the gender of the respondents. The data obtained is presented in the Table 4.2.

Table 4.2 Gender of the Respondents

Gender	No of respondents	Percentage
Male	29	38.7
Female	46	61.3
Total	**75**	**100**

As shown in Table 4.2. Sixty-one percent (61.3%) of the respondents were female while thirty eight percent (38.7%) were male. This indicates that majority of the teachers in public secondary schools in Kiambu sub-county are female. This is expected since most female teachers whose spouses work in Nairobi are deployed within Nairobi and its environs.

4.2.3 Highest Level of Professional Qualification

The study sought to find out the highest level of professional qualification the respondents had attained. Education levels include level of knowledge and skills and this is one way of measuring competence. The data obtained is presented in Figure 4.1.

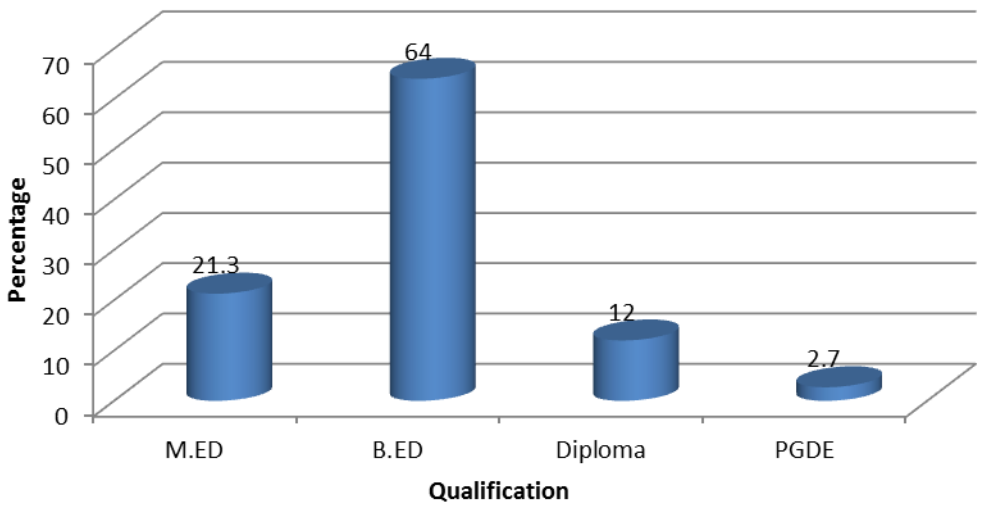

Figure 4.1 Highest Level of Professional Qualification

Figure 4.1 shows that (64%) of the teachers were holders of Bachelors' Degree , 21.3% had a Master Degree, 12% had a Diploma while 2.7% had a Post graduate Diploma in Education. This indicates that majority of teachers in public secondary schools in Kiambu sub-county are university graduates with a bachelors' degree in education. This is in line with the requirements that all teachers in secondary schools must have a minimum of a bachelors' degree in education in their specialized subject areas.

4.2.4 Years Worked as a Teacher

The study sought to establish the number of years the respondents had worked as classroom teachers. This would be an indication of their level of appreciation and application of the variables of the study in their organization. High levels of experience would be expected to enhance the understanding of the relationship between workload and performance. The data obtained is presented Table 4.3.

Table 4.3 Years Worked as a Teacher

Experience	No of respondents	Percentage
1 - 5 years	13	17.3
6 - 10 years	11	14.7
11 - 15 years	7	9.3
16 - 20 years	24	32.0
Over 20 years	20	26.7
Total	**75**	**100**

Table 4.3 shows that 32% of the respondents had worked as classroom teachers for 16 – 20 years, 26.7% had over 20 years working experience, 17.3% had worked for 1 – 5 years, 14.7% had worked for between 6 – 10 years and 9.3% had between 11 – 15 years working experience. This indicates that majority of teachers have over 10 years' teaching experience.

4.2.5 Area of Specialization

The study sought to find out the respondents' area of specialization in terms of either Arts or Science subjects. The information obtained is presented in Table 4.4.

Table 4.4 Area of Specialization

Area of specialization	No of respondents	Percentage
Sciences	32	42.6
Arts	43	57.3
Total	**75**	**100**

As shown in Table 4.4. 57.3% of the teachers enrolled in the study taught Arts subjects while 42.6% taught Science subjects. This indicates that there are more Arts teachers than in Sciences in public secondary schools in Kiambu Sub-county. This can be explained by the high number of teachers graduating with Arts subjects as compared to those in sciences since most student prefer to pursue other science related courses as opposed to teaching.

4.2.6 Job Group of the Respondents

The study sought to find out the job groups of the respondents. Career growth is associated with enhanced motivation hence better performance. The data obtained is presented in Figure 4.2.

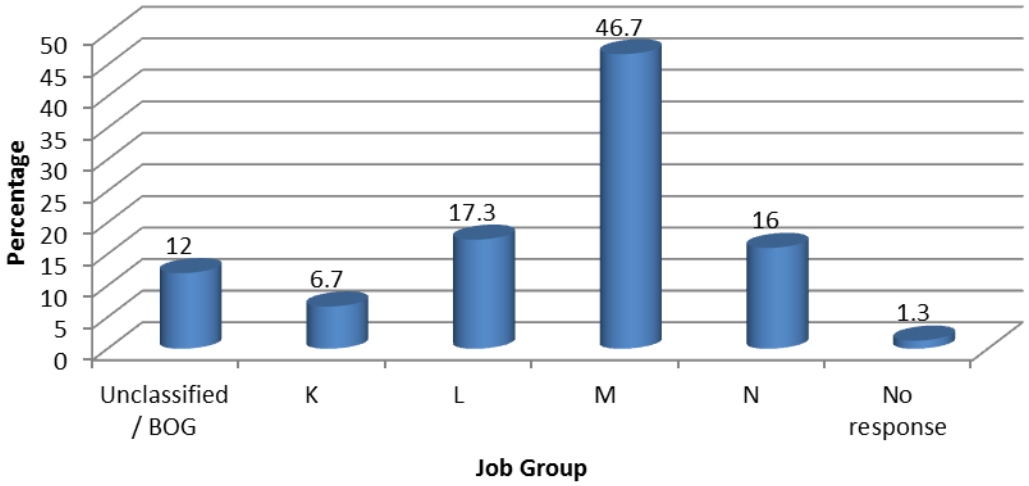

Figure 4.2 Years Worked as a Teacher

Figure 4.2 shows that 46.7% of the respondents were in Job Group M, 17.3% in Job Group L, 16% in N and 6.7% were in Job Group K. 12% were employed by the BOG and 1.3% did not respond to this question. The movement from one job group to another is based on experience. The large number of teachers in job group M is as a result of the fact that majority of the teachers have working for more than 10 years.

4.3 Workload

This section sought to find out about workload and the factors affecting the workload of the teachers in public secondary schools in Kiambu Sub-county. Performance can be affected by workload being too high or too low Nachreiner (1995).

4.3.1 Lessons Taught in a Week

Respondents were asked to state how many lessons they taught in a week.

Table 4.5 Lessons Taught in a Week

No of Lessons	No of respondents	Percent
6 – 12	1	1.3
13 – 18	5	6.7
19 – 25	55	73.3
26 – 30	14	18.7
Total	**75**	**100**

As shown in Table 4.5, most of the respondents (73.3%) taught between 19 to 25 lessons in a week, 18.7% taught between 26 and 30 lessons, 6.7% taught between 13 and 18 lessons while 1.3% taught between 6 and 12 lessons. This indicates that majority of the teachers' lessons per week are within the required maximum teaching workload of 27 lessons per week.

4.3.2 Average Number of Students in the Class

The study sought to find out from the respondents, the average number of the students in the classes they taught. The information obtained is presented in Figure 4.3.

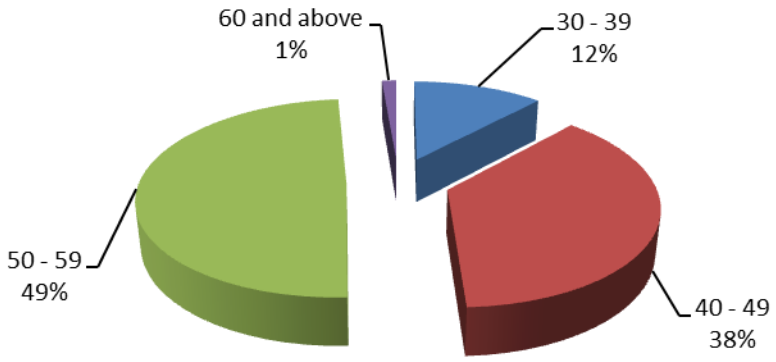

Figure 4.3 Average Number of Students in the Class

Figure 4.3 shows that nearly half (49%) of the respondents taught an average of between 50 to 59 students while 38% had a class of between 40 to 49 students, 12% had an average of 30 to 39 students in their class and 1% had 60 and above. This shows that in terms of teacher- student ratio, majority of the teachers' workload is high. The recommended teacher-student ratio is 1:45.

4.3.3 Administration of Continuous Assessment Test (CATs)

The respondents were asked to indicate the number of times they administered Continuous Assessment Tests to their students in a term.

Table 4.6 Frequency of administration of Continuous Assessment Test (CATs)

Frequency	No of respondents	Percentage
Every week	1	1.3
Every 2 weeks	8	10.7
Every month	37	49.3
Twice a term	27	36.0
No response	2	2.7
Total	**75**	**100**

Table 4.6 shows that 49.3% of the respondents administered Continuous Assessment Tests (CATs) every month while those who did so twice a term constituted 36%, 10.7% did so every two weeks, while 1.3% did every week. This indicates that majority of the teachers are meeting the ministry policy which recommends that the number of tests should 1 per month.

4.3.4 Frequency of Class Interruption Due to Student Behavior or Otherwise

Table 4.7 Frequency of Class Interruption Due to Student Behavior or Otherwise

Frequency	No of respondents	Percentage
Very many	4	4.0
Many	13	17.3
Few	28	37.3
Very few	30	40.0
None at all	1	1.3
Total	**75**	**100**

As shown in Table 4.7, classes were interrupted due to student behavior or otherwise very few times as indicated by 40% of the respondents. 37.3% said they experienced interruptions a few times, 17.3% were 4% did so many and very many times respectively. 1.3% of the respondents did not respond to this question. This indicates that majority of classes are interrupted very few times implying that the students are disciplined and therefore teachers are able to cover their lessons adequately.

4.3.5 Availability of Time for Classroom Instructional Practices and Other Aspects of Workload

This section sought to determine from the respondents the extent to which the teachers had time for classroom instructional practices and other aspects of workload. According to Fournier et al. (2011) workload must be approached holistically, that is, through activity analysis that takes into account the overall activity seen as the result of a combination of factors inherent in the work situation. A five point likert scale was used where a score of ≤1.5 was interpreted to mean strongly disagree, while a score of between 1.5 to ≤2.5 implied disagree. A score of between 2.5 to ≤3.5 was interpreted to mean neutral, a mean score of 3.5 ≤ 4.5 was interpreted to mean agree while a score of ≥4.5 was interpreted to mean strongly agree. A standard deviation of ≤1 was interpreted to mean that respondents had a consensus in the rating of the statement while a standard deviation greater than 1 was interpreted to mean that the respondents differed in their perception about the statement.

Table 4.8 Availability of Time for Classroom Instructional Practices and Other Aspects of Workload

Statement	Mean	SD
I cover the syllabus within the required time	4.6	0.76
I have time to prepare daily for all my lessons as required	4.5	0.71
I have time to give and mark adequate work to my students during my lessons	4.1	1.02
I have time to give individualized attention to the weak students during my lessons	3.7	1.04
I have time to go through CATs and exam papers with the students after they are marked	4.2	0.97
I have time to prepare professional records as required (schemes of work, student progress books etc.)	4.2	1.05
There are enough resources in the school that enable me to do my work well	4.4	0.97
I have time for professional support with my colleagues in the department	3.6	0.91
The school leadership gives adequate support for my work	3.6	1.10
My work does not interfere with my private life	3.4	1.09
Average	**4.0**	**0.96**

As shown in table 4.8, the respondents strongly agreed that they covered their syllabus within the required time (M = 4.6, SD = 0.76). Similarly, the respondents strongly agreed that they had time to prepare daily for all their lessons as required (M = 4.5, SD = 0.71). The respondents further agreed that there were of enough resources in the school that enabled them to do their work well (M = 4.4, SD = 0.97). They also agreed that they had time to go through CATs and exam papers with the students after they are marked (M = 4.2, SD = 0.97). The respondents also agreed that they had time to prepare professional records as required (schemes of work, student progress books etc.) (M = 4.2, SD = 1.05) The respondents further agreed they had time to give and mark adequate work to their students during their lessons (M = 4.1, SD = 1.02) agreed about having time to give individualized attention to the weak students during their lessons (M = 3.7, SD = 1.04) and also agreed on having time to give and mark adequate work to their students during their lessons (M = 3.6, SD = 0.91). The respondents agreed that the school leadership gave adequate support for their work (M = 3.6, SD = 1.10) as well as having professional support with colleagues in the department. Respondents were neutral on whether their work interfered with their private life (M = 3.4, SD = 1.09).

Overall, respondents agreed on issues regarding the availability of time for classroom instructional practices and other aspects of workload (M = 4.0, SD = 0.99). This implies that the teachers are happy with their syllabus coverage, preparation of lessons, going through the CATs and exam papers with their students, preparation of professional records as well as giving and marking students' work. They are also happy with the support by the school leadership, availability of resources in the schools as well as

support from their colleagues. The teachers were however moderate on whether their work interferes with their private life.

4.4 Performance

This section sought to find out the performance of teachers in public secondary schools in Kiambu Sub-county. Performance of teachers was measured using the average KCSE mean scores for their respective schools for three years: 2012, 2013 and 2014.The analysis of all the schools in their respective categories is presented in Table 4.9.

Table 4.9 KCSE Performance by Category and School

Category	School	KCSE performance (Mean Scores)			Average
		2012	2013	2014	
Extra-County	Kanunga High	7.342	8.400	7.757	7.833
	Kiambu High	8.761	8.167	7.975	8.301
	Loreto Kiambu	6.945	7.060	7.114	7.040
	St Anne's Lioki	9.125	8.596	8.317	8.679
	Average	**8.043**	**8.056**	**7.791**	**7.963**
County	Senior Chief Koinange	**6.155**	**6.387**	**6.359**	**6.300**
Sub-County	Cianda	3.283	3.162	3.816	3.420
	Gacharage	3.266	3.216	2.750	3.077
	Gachie	3.859	3.607	4.100	3.855
	Karuri	5.143	4.615	4.693	4.817
	Kiambu Township	4.141	3.760	3.967	3.956
	Kihara	3.826	3.762	4.204	3.931
	Muongoiya	3.696	3.120	2.829	3.215
	Muthurwa	4.554	4.586	4.584	4.575
	Ndumberi	5.373	5.570	5.177	5.373
	Riabai	4.227	3.848	4.929	4.335
	Riara	3.046	3.157	4.476	3.560
	St Joseph's Gathaga	3.899	2.966	3.180	3.348
	Ting'ang'a	3.768	3.273	3.475	3.505
	Wangunyu	3.013	3.617	5.034	3.888
	Average	**3.935**	**3.733**	**4.087**	**3.918**

Table 4.9 summarizes the performance of the 19 schools included in the study. The 3 year average KCSE score ranged from 8.679 for St. Anne's Lioki down to 3.077 for Gacharage. Extra County schools had a combined average score of 7.963, County school had 6.300 and Sub-County schools had an average of 3.918. All the 14 Sub-County schools had a combined mean score of less than 4. This indicates that majority of public secondary schools in Kiambu Sub-county are Sub-County schools and their performance is below average. This difference in performance can be explained by the fact that Sub-county schools enroll students with lower KCPE marks than the other two categories.

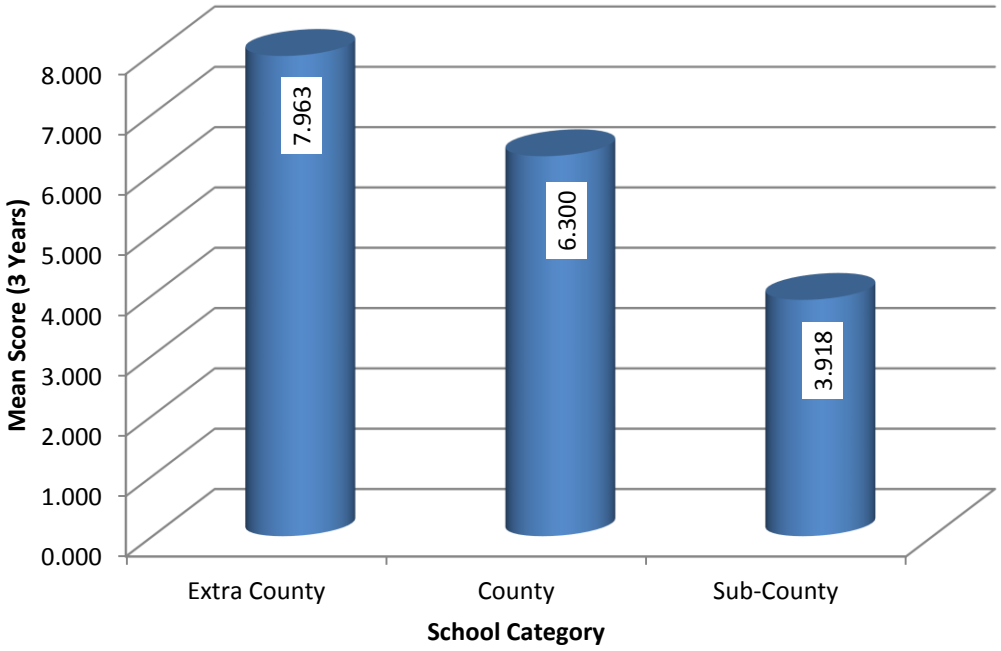

Figure 4.4 KCSE Performance by School Category

Figure 4.4 shows the Extra-County schools had above average performance County schools had average performance over the three years under review while Sub-County schools performed below average over the same period.

4.5 Correlation Analysis

In this section, correlation analysis was used to determine the relationship between the two variables, workload and performance. A correlation is a number between -1 and +1 that measures the degree and direction of association between two variables.

4.5.1 Correlation between Factors Affecting Workload and Performance

The correlation between factor affecting workload and performance was done using Pearson Product-Moment Correlation Coefficient. Table 4.10 presents the results.

Table 4.10 Correlation between Factors Affecting Workload and Performance

		3 year average score	Lessons taught in a week	Average class size	Administration of CATs	Class interruptions
3 year average score	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	75				
Lessons taught in a week	Pearson Correlation	0.073	1			
	Sig. (2-tailed)	0.535				
	N	75	75			
Average class size	Pearson Correlation	0.019	0.213	1		
	Sig. (2-tailed)	0.874	0.067			
	N	75	75	75		
Administrati on of CATs	Pearson Correlati on	-0.147	0.12	-0.014	1	
	Sig. (2-tailed)	0.213	0.31	0.904		
	N	73	73	73	73	
Class interruptions	Pearson Correlation	0.098	-.371**	0.06	0.033	1
	Sig. (2-tailed)	0.404	0.001	0.607	0.784	
	N	75	75	75	73	75

There was no statistically significant correlation between lessons taught in a week and performance, r = 0.073, n = 75, p >.05. Fewer lessons taught in a week translate to lower performance. Similarly, smaller number of students in a class is related to high performance, 0.019, n = 75, p >.05 and so is low frequency of class interruptions due to

student behavior, r = 0.098, n = 75, p >.05. Low frequency of administration of continuous assessment tests (CATs) leads to lower performance, r = -0.147, n = 75, p >.05.

4.5.2 Correlation between Availability of Time for Classroom Instructional Practices and Other Aspects of Workload and Performance

The relationship between availability of time and support on various aspects of workload and performance was done using Pearson Product-Moment Correlation Coefficient. Table 4.11 presents the results.

Table 4.11 Correlation between Availability of Time for Classroom Instructional Practices and Other Aspects of Workload and Performance

Statement	3 year KCSE average score		
	Pearson Correlation	Sig. (2-tailed)	N
I cover the syllabus within the required time	-0.129	0.278	73
I have time to prepare daily for all my lessons	-0.162	0.166	75
I have time to give and mark adequate work to my students during my lessons	-0.183	0.126	71
I have time to give individualized attention to the weak students during my lessons	-0.106	0.365	75
I have time to go through CATs and exam papers with the students after they are marked	-0.071	0.549	73
I have time to prepare professional records as required (schemes of work, student progress books etc)	-0.198	0.089	75
There are enough resources in the school that enable me to do my work well	-0.12	0.305	75
I have time for professional support with my colleagues	-0.232*	0.045	75
The school leadership gives adequate support for my work	-0.07	0.552	75
My work does not interfere with my private life	-0.208	0.073	75

Table 4.11 shows no statistically significant relationship between coverage of the syllabus within the required time and performance, $r = -0.129$, $n = 73$, $p > .05$, indicating that not covering the syllabus within the required time is related to low performance. The results are similar to having no time to prepare daily for all lessons, $r = -0.162$, $n = 75$, $p > .05$, no time to give and mark adequate work for students during lessons, $r = -0.183$, $n = 71$, $p > .05$, no time to give individualized attention to the weak students during lessons, $r = -0.106$, $n = 75$, $p > .05$, no time to go through CATs and exam papers with the students after they are marked, $r = -0.071$, $n = 73$, $p > .05$, no time to prepare professional records as required (schemes of work, student progress books etc) , $r = -0.198$, $n = 75$, $p > .05$, inadequate resources in the school, $r = -0.12$, $n = 75$, $p > .05$, the school leadership not giving adequate support, $r = -0.07$, $n = 75$, $p > .05$, and work interfering with private life, $r = -0.208$, $n = 75$, $p > .05$.

There was a weak negative statistically significant relationship between having time for professional support with colleagues and academic performance, $r = -0.232$, $n = 75$, $p < .05$, meaning having time for professional support with colleagues raises academic performance.

4.5.3 Relationship between Workload and Performance

A Pearson correlation coefficient was computed to assess the relationship between overall workload and performance.

Table 4.12 Relationship between Workload and Performance

		3 year KCSE average score	Workload
3 year KCSE average score	Pearson Correlation	1	-0.224
	Sig. (2-tailed)		0.054
	N	75	75
Workload	Pearson Correlation	-0.224	1
	Sig. (2-tailed)	0.054	
	N	75	75

As shown in Table 4.12, there was no statistically significant correlation between the two variables, r = -0.224, n = 75, p >.05. Overall, heavy teacher workload is related to lower performance.

4.6 Discussion

This section discusses the results in line with the objectives of the study. The objective of the study was to establish the influence of teacher workload on performance in public secondary schools in Kiambu Sub-county.

From the findings of the study, most of the teachers teach between 19 and 25 lessons in a week and therefore they were within the 27 maximum required number of lessons per week recommended by the TSC. In their study Kimani et al.(2013) concluded that schools where teachers had 25 lessons or less registered higher mean scores compared to schools where teachers had 26 lessons or more. The number of students were much higher than the recommended (50-59) in most schools. This means that class control and lack of individualized attention is a problem thus affecting performance. These findings are consistent with Onyango (2013) that a high student- teacher ratio means teachers work too much, they are not able to give the pupils adequate work and mark it in time

and that it causes them stress. This is also a sign of overcrowding in a classroom which therefore affects the quality of teaching.

The study established that majority of the teachers administered CATs three times in a term as recommended by the ministry of education. In their findings, Black and Williams cited in Kapambwe (2010) concluded that use of formative assessment had a powerful impact on students' academic achievement. Continuous assessment tests help students to identify areas they have difficulties in as well guiding the teachers on which areas that need to put more emphasis in. Further, the study revealed that class interruptions due to student behaviour were very few and therefore the teachers were able to cover their lessons adequately. Musasia, Nakhanu and Wekesa (2012), in agreement suggest that classroom discipline affects the learning transactions that will contribute to syllabus coverage. Discipline determines how time management is done in the various schools.

On availability of time for classroom instructional practices and other aspects of workload, the study revealed that teachers managed to cover they syllabus in the required time. Furthermore, the study established that teachers had time to prepare daily for all the lessons as required, they had time to give and mark students' work during their lessons and also had time for individualized attention to weak students. Simatwa (2011) amplifies the role of time management by pointing out that it enables the teacher to adapt rapidly in demanding work environments and create effective classroom management.

The study also established that teachers had time for professional support with their colleagues and that most schools had the resources to enable them do their work well. The study also established that teachers prepared professional records as required. The

study also established that teachers work life interfered with their private life. It can be inferred from the findings that teachers carry work home since it is evident that they are not able to complete it in school.

On performance, the study established that most schools performed poorly. All sub-district schools had an average mean 3 or a mean grade of D Plain. The minimum requirement of university admission is an average mean of 7 which is a C+. This shows that hardly any student makes it to the university from these schools. This finding is consistent with Eshiwani (1993) who asserts that the quality of education is seen in terms of the number of students passing national examinations. The only County school in the Sub-district had average performance of 6 or a C plain ,while the four Extra County schools had slightly above average performance with a mean of 8 which is B-. This study suggests that more teachers should be recruited for the Sub county schools since they have a higher student-teacher ratio than the other categories. This is due to the subsidized secondary education which offers free tuition to students in day secondary schools.

The study established that there was no statistically significant correlation between factors affecting workload and performance. Specifically, few number of lessons taught per week leads to low performance and so is low frequency of administration of CATs. T A smaller number of students contributes to high performance and so is low frequency of class interruptions.

Further, the study established that there was no statistically significant correlation between availability of time and support on various aspects of workload. Specifically, not

covering the syllabus within the required time, lack of time to prepare daily for all lessons, lack of time to give and mark students work in class, lack of time to give individualized attention to weak students, lack of time to revise tests and exams with students and lack of time to prepare professional records adequately all lead to low performance. Inadequate school resources and lack of support from the school leadership as well as lack of work life balance also contribute to low performance. There was a weak negative statistically significant relationship between having time for professional support with colleagues and performance, indicating that having time for professional support with colleagues raises performance.

The study revealed that there was no statistically significant correlation between overall workload and performance and that overall, heavy teacher workload is related to lower performance.

4.7 Chapter Summary

This chapter dealt with data analysis of the biographic data of the respondents, workload and performance and the results were presented in percentages, tables of frequencies mean scores and standard deviations. The chapter also presented data on the correlation between workload and performance and finally the chapter gave a detailed discussion on the findings of the problem under study.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The objective of this study was to establish the influence of teacher workload and performance in public secondary schools in Kiambu Sub-county.

This chapter presents the summary of key data findings, conclusion drawn from the findings and recommendations made. It also highlights the limitations of the study and suggestions for further research.

5.2 Summary of the Findings

The study established that majority of teachers in Kiambu Sub-county are middle aged. This implies that the workforce is energetic and able to do their work well. The majority of teachers are female. In addition, majority of teachers have a bachelors' degree with most of them having over 10 years experience. This implies they offer quality teaching to their students. Majority of the teachers teach Arts subjects implying that Science subject teachers are few and therefore have higher teaching workload. Most of the teachers are in job group M. This is expected since movement from one job group to the other is based on the teaching experience.

Most teachers teach between 19 to 25 lessons a week which is in line with ministry policy of a maximum of 27 lessons a week. Student-teacher ratio is higher than the recommended. This is because of the subsidized secondary education and the fact that most schools are sub-district and therefore day schools where tuition is free. This also

indicates high workload for the teachers. Majority of the teachers administer CATs three times a term as per MOE policy. Majority of the teachers are interrupted just a few times during their teaching due to student behavior or otherwise. This implies that most students are disciplined and teachers are able to cover their lessons adequately.

With regard availability of time for classroom instructional practices and other aspects of workload, majority of the teachers agreed they had time to cover their syllabus within the required time. The teachers also agreed on other aspects such as having time to prepare daily for all lessons, giving and marking adequate work during lessons, giving individualized attention to students during lessons, preparing professional records and school leadership giving them enough support in doing their work. Teachers agreed that there are enough resources in the school to enable them work well and that they have time for professional support with colleagues. They also agreed that their work interferes with their private life.

General performance is below average with 14 out of 19 schools, all of which are in the Sub- county category having an average mean score of below 3 or grade D out of a possible 12, the 1 County schools has an average mean of 6 or grade C plain while the 4 Extra County schools have an average mean of 8 or grade B- . Grades D, D- and E are considered as academic wastage and not qualified to join any tertiary institutions. This implies that high enrolment in schools especially in Sub-district schools and lack of enough teachers contributes to low performance.

On the relationship between factors affecting workload and performance, the study established that, few number of lessons taught per week leads to low performance and so

is low frequency of administration of CATs. A smaller number of students contributes to high performance and so is low frequency of class interruptions. On the relationship between availability of time and support for various aspects of workload, the study established that, not covering the syllabus within the required time, lack of time to prepare daily for all lessons, lack of time to give and mark students work in class, lack of time to give individualized attention to weak students, lack of time to revise tests and exams with students and lack of time to prepare professional records adequately all lead to low performance. Inadequate school resources and lack of support from the school leadership as well as lack of work life balance also contribute to low performance. There was a weak negative statistically significant relationship between having time for professional support with colleagues and performance, indicating that having time for professional support with colleagues raises performance. Finally, the study established that overall, heavy teacher workload contributes to low performance.

5.3 Conclusion

The study sought to establish the influence of teacher workload on performance in public secondary schools on Kiambu Sub-county. From the findings, the study concludes that heavy teacher workload negatively influences performance in public schools in Kiambu Sub-county. Teacher-student ratio is also high thus contributing to low performance.

The study further concludes that teaching very few lessons in a week and low frequency of student assessment and evaluation translates to low performance while having time for lesson preparation, individualized attention to week students, coverage of syllabus and the presence of professional support from colleagues contribute to high performance.

5.4 Recommendations for Policy Makers

The ministry of education and the government of Kenya have the responsibility of ensuring that every child gets quality education. This being a human rights issue, the policy makers can use this study to get some insights on ensuring that all secondary school children have equal chances of getting quality education no matter which category of school they attend.

The TSC, which is in charge of recruitment of teachers can use this study to review their policy on CBE which guides the commission on the number of teachers required per school, in ensuring that all Sub-county schools are allocated adequate number of teachers to handle the high student –teacher ratio and ensure that they are able to compete with other bigger schools in terms of quality teaching and learning.

5.5 Recommendations for Practice

The study therefore recommends that school managers must regularly supervise teachers work and ensure that the curriculum is being implemented as required. This should be done by the principals ensuring the syllabus is covered within the required time, adhering to the monthly CATs policy with time allocated for revision, ensuring that teachers issue, mark and return students' assignments as well as prepare professional records adequately.

5.7 Limitations of the Study

Due to the teachers strike going on at the time of the study collection of data proved quite a task since most teachers would only come to the schools briefly just to sign the roll call. The researcher had to visit the schools for a number of times.

Another limitation was that some respondents did not feel comfortable disclosing information touching on their preparedness when going to class. This can be construed to mean the teachers felt they were admitting to being negligent to their duties. It is for the same reasons that some respondents left some of the questions blank.

5.6 Suggestions for Further Research

This study focused on teacher workload and performance in public secondary schools. Further research could to be carried out on private secondary schools so as to compare the findings on the relationship between the variables. A similar study could also be done in other East African countries in order to give more insights on the nature of the relationship of the variables in a different context. Further studies on the same area should also be carried out in other sectors.

REFERENCES

Abbas, Q. & Yaqoob, S. (2009). Effect of leadership development on employee performance in Pakistan. *Pakistan Economic and Social Review*, 47(2), 269-292.

Ali, A.Y.S., Ali, A.A., & Adan, A.A. (2013). Working conditions and employees' productivity in manufacturing companies in sub-Saharan African context: case of Somalia. *Educational Research International,* 2(2).

Allen, H. L. (1996). Faculty workload and productivity in the 1990s: Preliminary findings. *The NEA 1996 Almanac of Higher Education*, 21-34.

Atkinson, G. B. J. (1983). *The economics of education.* London: Hodder and Stoughton Education printers.

Bahadori, M., Ravangard, R., Raadabadi, M., Mosavi, S. M., Gholami, F. M., & Mehrabian, F.(2014). Factors affecting intensive care units nursing workload. *Iran Red Crescent Medical Journal*, 16(8).

Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis.* Chicago: University of Chicago Press.

Cooper, D. R. and Schindler, P. S. (2003). *Business research methods.* New York: McGraw Hill/Irwin.

Cranwell-ward, J., & Abbey, A. (2005). *Organizational stress.* New York: Palgrave Macmillan.

Dasgupta, P.R. (2013). Volatility of workload on employee performance and significance of motivation: IT sector. *Science Journal of Business and Management,* 1(1), 1-7.

Davidson, I. (2004). Employees: business asset or legal liability? *Internet Works, 86.*

DFEE (1997). *White Paper: Excellence in Schools.* London: HMSO.

Education Indicators in Kenya. (n.d.). Retrieved July 7, 2015, from http://www.sp.uconn.edu/~wwwciom/WPNO4.pdf

Eshiwani, G. S. (1993). *Education in Kenya since independence.* Nairobi: Government Printer

Fagerstrom, L. and Vainikainen, P. (2014). *Nurses' experience of non-patient factors that affect nursing workload: a study of a PAONCIL instruments non-patient factors.* Nursing Research and Practice.

Fourner, P. S., Montrenuil, S., Brun, J. P., Bilodeau, C. & Villa, J. (2011). *An exploratory study to identify factors that have an impact on health and safety*. Montreal. Quebec: IRSST.

Fuenzalida, C. (2006). Workload history effects: a comparison of sudden increases and decreases in performance. *Current psychology*, 25 (1), 8-14.

Hersey, P. & Blanchard, K.H. (1988). *Management and organizational behaviour*. Englewood Cliffs, NJ: Prentice-Hall.

Icharia, S. N. (2009). *Critical success factors in kenya certificate of secondary education examinations in public secondary schools in Kiambaa division.* Unpublished MBA project, University of Nairobi.

Ittner, C.D., & Lacker, D.F (2002).Determination of performance measures choices in worker incentive plans. *Journal of Labor Economics,* 20(2), 58-S90.

Jex, S.M., & Beeh, T.A. (1991). Emerging theoretical and methodology issue in the study of work-related stress. *Research in Personnel and Human Resources Management,* 9,311-365.

Khan, H. Z., Halabi, A. K & Sartorius, K. (2011). The use of multiple performance measures and the balance scorecard (BSC) in Bangladeshi firms. Research paper emerald group. *Journal of Accounting in Emerging Economic*s, 1 (4), 160-190

Kothari, C. R. (2004). *Research methodology and techniques.* New Delhi: New Age International.

Levine, D. U. & Lezotte, L. W. (1990). *Unusually effective schools: A Review and analysis of research and practice.* Madison, WI: National Center for Effective Schools Research and Development.

Mathews, J. R. (2011).Assessing organizational effectiveness: The roley performance measures. *The Library Quarterly: Information Community, Policy,* 81(1) 83-110.

Musasia, A. M., Nakhanu, B. S. & Wekesa, D, W, (2012). Investigation of factors that influence syllabus coverage in secondary school mathematics in Kenya. *International Journal of Humanities and Social Sciences,* 2(15).

Nachreiner, F. (1995). Standards for ergonomics principles relating to the design of work system and to mental workload. *Applied Ergonomics,* 26 (4), 259-263.

Nussbaum, M. A., & DiDomenico, A. (2008). Interactive effects of physical and mental workload on subjective workload assessment. *International Journal of Industrial Ergonomics,* 38, 977–983.

Nyawara, J. O. (2011). *The influence of workload on teacher effectiveness in Kombowea division Kisumu west district.* Unpublished MBA thesis. Nairobi: University of Nairobi.

Omolayo, B.O., & Omole, O.C. (2013). Influence of mental workload on job performance. *International Journal of Humanities and Social Science,* 3 (15), 238.

Onyango, M. A. (2013). *School based factors influencing instructional performance of teachers in public schools in Kadibo Division Kisumu County, Kenya.* Unpublished Master of education in curriculum studies project. Nairobi: University of Nairobi.

Parveen, S., Sohai, M, M., Naeem, F., Azhar. Z., & Khan, S.H. (2012). Impact of office facilities and workplace milieu on employees performance: A Case Study of Sargodha University. *Asian Journal of Empirical Research, 2(4),* 96-117.

Riley, V., Lyall, E., & Wiener, E. (1994). Analytic workload model for flight deck design and evaluation. *Proceedings of the Human Factors and Ergonomics Society,* 38, 81-84.

Sabir, M.S., Iqbal, J.J., Rehman, K.U., Shah, K.A., & Yameen, M. (2012). Impact of corporate ethical values on ethical leadership and employee performance. *International Journal of Business and Social Science,* 3 (2), 163-171.

Shah, S. S. H., Jaffari, A. R., Aziz, J., Ejaz, W., Ul-Haq, I., & Raza, S. N. (2011). Workload and performance of employees. *Interdisciplinary Journal of Contemporary Research in Business*, 3(5), 256–267.

Suhartini, (1995). *Analysis of factors affecting intention performance improvement of lecturers at private universities in Yogyakarta, Surabaya.* Unpublished thesis. Airlangga University.

The Well-being of Nations (2001). *The role of human and social capital.* Retrieved June 2, 2015 from http://www.oecd.org/site/worldforum/33703702.pdf.

Tuitoek, J. K. F., Yambo, J. M. O., & Adhanja, R. A. (2015). Contributions of school based socio-economic factors on students' academic performance in public secondary schools in Eldoret West Sub-County, Uasin Gishu County. *European Journal of Research and Reflection in Educational Sciences,* 3(1).

Wickens, C. D. & Hollands, J. G. (2000). *Engineering psychology and human performance*. NJ: Prentice Hall.

Young, M. S., & Santan, N. A. (2002). Malleable attention resources theory: A new explanation for the effects and mental under load on performance. *Human Factors,* 44(3), 365-375.

APPENDICES

Appendix I: Questionnaire

This question is designed to gather information about teacher workload and performance. Please indicate the correct answer by ticking (√). Be as honest as possible. All information given will be strictly confidential. All data collected will be used for academic purpose only. Do not write your name or employment number.

SECTION A: BIOGRAPHICAL DATA

1. What is your age?
   i) Below 30yrs [ ]
   ii) 31-39yrs [ ]
   iii) 40-49yrs [ ]
   iv) 50yrs and above [ ]
2. Gender:
   Male [ ] Female [ ]
3. What is your highest teaching professional qualification?
   i) M.ED [ ]
   ii) B.ED [ ]
   iii) Diploma [ ]
   iv) PGDE [ ]
4. How many years have you worked as a teacher?
   i) 1-5 yrs [ ]
   ii) 6-10 yrs [ ]
   iii) 11-15 yrs [ ]
   iv) 16-20yrs [ ]
   v) Over 20 yrs [ ]
5. What is your area of specialization?
   i) Languages [ ]
   ii) Sciences [ ]
   iii) Humanities [ ]
   iv) Technical Subjects [ ]

6. What is your job group?
   i) Unclassified/BOG [ ]
   ii) K [ ]
   iii) L [ ]
   iv) M [ ]
   v) N [ ]
   vi) P [ ]

SECTION B: FACTORS AFFECTING WORKLOAD

Kindly tick (√) or write the correct response to these questions as appropriate.

1. How many lessons do you teach in a week

6-12	13-18	19-25	26-30	Above 30

2. What is the average number of students in the classes you teach?

20-29	30-39	40-49	50-59	Above 60

3. How often do you administer Continuous Assessment Test (CATs)

Every week	Every 2 weeks	Every month	Twice a term	Once a term

4. How many times is your class interrupted due to student behaviour or otherwise that disrupt your teaching?

Very many	Many	Few	Very few	None at all

5. **Availability of time for classroom instructional practices and other aspects of workload.**

Please pick the appropriate goal for each statement below by indicating their frequencies using:

1 (Never) 2 (Rarely) 3 (Sometimes) 4 (Often) 5 (Always)

	1	2	3	4	5
a. I cover the syllabus within the required time.					
b. I have time to prepare daily for all my lessons as required					
c. I have time to give and mark adequate work to my students during my lessons					
d. I have time to give individualised attention to the weak students during my lessons.					
e. I have time go through CATs and exam papers with the students after they are marked.					
f. I have time to prepare professional records as required (schemes of work student progress books e.t.c.)					
g. There are enough resources in the school that enable me to do my work well.					
h. I have time for professional support with my colleagues.					
i. The school leadership gives adequate support for my work.					
j. My work does not interfere with my private life.					

THANK YOU

Appendix II: KCSE Examination Analysis from 2012-2014 for Public Secondary Schools in Kiambu Sub-County

	SCHOOL	2012	2013	2014	AVERAGE
1	St Anne's Lioki	9.125	8.596	8.317	8.6793333
2	Kiambu High	8.761	8.187	7.975	8.3076667
3	Kanunga	7.432	8.4	7.757	7.863
4	Loreto	6.945	7.06	7.114	7.0396667
5	Senior Chief	6.155	6.377	6.359	6.297
6	Ndumberi	5.373	5.57	5.177	5.3733333
7	Wangunyu	3.013	3.617	5.034	3.888
8	Riabai	4.227	3.848	4.929	4.3346667
9	Karuri	5.143	4.65	4.693	4.8286667
10	Muthurwa	4.554	4.586	4.584	4.5746667
11	Riara	3.046	3.157	4.476	3.5596667
12	Kihara	3.826	3.762	4.204	3.9306667
13	Gachie	3.859	3.607	4.1	3.8553333
14	Kiambu Township	4.141	3.76	3.967	3.956
15	Cianda	3.283	3.162	3.816	3.4203333
16	Tinganga	3.768	3.273	3.475	3.5053333
17	St Joseph Gathanga	3.899	2.966	3.18	3.3483333
18	Mwongoiya	3.696	3.12	2.829	3.215
19	Gacharage	3.266	3.216	2.75	3.0773333

Appendix III: Number of Teachers Per School

		MALE	FEMALE	TOTAL NUMBER OF TEACHERS
1.	Kanunga High	11	23	34
2.	Senior Chief	12	30	42
3.	Mwongoiya	8	8	16
4.	Karuri	20	21	41
5.	Muthurwa	6	10	16
6.	St Joseph Gathanga	8	4	12
7.	Gacharage	4	12	16
8.	Kihara	7	16	23
9.	Gachie	6	12	18
10.	Wangunyu	4	12	16
11.	Cianda	3	7	10
12.	Loreto	17	27	44
13.	Riara	10	9	19
14.	Kiambu Township	5	11	16
15.	Kiambu High	18	20	38
16.	Ndumberi	3	14	17
17.	Tinganga	6	14	20
18.	St Anne's Lioki	8	14	22
19.	Riabai	11	8	19
		167	272	439