

INVESTIGATING THE EFFECTIVENESS AND CREDIBILITY OF TEACHERS PAYROLL SYSTEM AND THEIR PERFORMANCES IN SIERRA LEONE

CASE STUDY: SIX GOVERNMENT SUPPORTED SCHOOLS IN THE KENEMA DISTRICT IN THE EASTERN PROVINCE OF SIERRA LEONE.

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ABSTRACT

The purpose of this study was to examine the effectiveness and credibility of teacher salary system and its bearing with their performance in six selected schools in Kenema District. A cross sectional survey design was used to collect data. Data was gathered using a well-structured self-administered questionnaire and also personal interview for the purpose of speed and clarity. Purposive sampling was applied as respondents deemed to be directly in charge of affairs in the selected schools were selected as respondents for the questionnaire. These respondents filled the questionnaire. The respondents were drawn from all cadres of staff ranging from principal/head teacher to junior teachers as well as school management committees, administrative staff and others. The data was analyzed using SPSS and presented in both tabular and graphical formats. The findings revealed that teacher payroll system is not effective in schools in Sierra Leone and that teacher performance is not hinged on the pay system alone but other factors as well. The findings revealed that banking system, public financial management system, audit system, management information system and payroll management system are the constructs of teacher payroll system in schools. All these constructs of are on the average ineffective enough to get a good payroll system in the schools in Sierra Leone.

INTRODUCTION

Globally, effective and credible salary system is a priority for government line ministries among other employing authorities, as it is critical for employees' performance whether they be corporate employees or civil servants. It is a basic assumption of management and government systems that increase in the integrity and efficiency of a salary system is directly linked with improvement of the performance of employees. Throughout Sub-Saharan Africa, civil service payroll systems are faced with immense challenges in terms of their efficiency and credibility. This is more so the case for developing countries

emerging from conflict and, therefore, characterized by weak economies such as is the case with Sierra Leone. One sector in which this issue is of critical importance is the education sector. At the conclusion of Sierra Leone's civil war, rebuilding the country's crippled educational system was an absolute priority for the country's post-conflict recovery.

The post-war Sierra Leone government introduced the Education Act of 2004, confirming compulsory primary education, the right to education, and a preference for trained and qualified teachers. With the abolition of school fees, primary net enrolment rates rose from 41 per cent at the end of the war to 63 per cent in 2004 (UNICEF, 2005; MEST, 2007). Recent data (in 2010 and 2011) show that there were 32,000 teaching staff at primary level and 10,000 at secondary (Goldsmith, 2010; UNESCO, 2011). This certainly dwarfs the civil service payroll of 15,000 and the army of 8,000 (Goldsmith, 2010). Despite the size of the teaching force, there is an urgent need for the recruitment of better qualified teachers in order to meet the needs of a growing school age population. An effective and efficient teacher salary system is one of the most important elements of a high-quality education system in any country (INEE, 2009). Teacher pay is directly linked with expanding access to schooling. An education system's ability to pay its teachers and on time is closely inter-linked with positive results such as teacher effectiveness and efficient performance yet teacher payroll integrity has been and remains to be a major issue of concern for effective governance in Sierra Leone. Teacher payroll has been, perhaps, the most problematic. By the close of 2015, independent estimates suggested that 5-10% of payees on the country are teaching payroll may be "ghost teachers" or persons who receive regular payments without contributing teaching services. This comes on the back of several years of efforts by the MEST to improve the integrity of the teacher Payroll. Conversely, there is a break in the pace of legitimate teachers being able to receive payment at all or appropriate payment according to their latest level of qualification or latest level of progression.

'Given that wage bills constitute the majority of government expenditures in Sierra Leone, removing the teacher payroll leakages could create significant capacity for the Government of Sierra Leone to recruit new qualified teachers, offer incentives for serving highest need areas, and operate with a more durable governance structure.'

On this note, it is now the sole responsibility of the Ministry of Education Science and Technology (MEST) for cleaning teacher payroll in maintaining proper records of educator's qualifications, appointments, retirements, and departures from the profession. Currently, the Teaching Service Commission (TSC), is charged with responsibility to oversee all issues relating to education professionals. While multiple actors suggest that the TSC is the natural home for payroll cleaning exercises, lack of operational capacity within the commission hinders progress, so TSC's role may be best positioned to serve a consultative role for the interim period. Dr. Stanella Beckley (2010), TSC chair, expresses a high degree of willingness to engage in the payroll reform process in this capacity. In addition to MEST and TSC, MoFED, HRMO, ACC and the Presidential Delivery Team are critical stakeholders involved in ensuring successful clearing of the payroll. Hence, all parties involved have collaboratively marched towards achieving effective teacher salary systems.

PROBLEM STATEMENT

Many nations of the developing world especially Sub-Saharan countries such as Sierra Leone are still grappling with the issue of effective salary systems and payroll management. The issue tends to be most pronounced in post-conflict contexts. In the case of Sierra Leone, it has resulted in there being rather limited confidence on the part of the donor community as well as citizens in the management of teacher salaries and the systems set up for the purpose. In response to the situation the government has been involved in wave after wave of attempts to devise a system that guarantees effectiveness as well as credibility to the process and that restores confidence on the part of donors, employees and the public in general. To date, however, new methods are being tried in an effort to bring efficiency and integrity to the

system. This is proof that previous approaches are yet inadequate for what is required. There have certainly been studies before the proposed one on the country's education sector including the teacher salary system.

SIGNIFICANCE OF THE RESEARCH STUDY

The study proposed herein seeks to re-examine purported findings and viewpoints from professionals as well as academics to inform the researcher's independent recommendations. As the majority of government's expenditure in Sierra Leone is wage bills, a study such as this that contributes to removing teacher payroll leakages and increasing efficiency in the processing and delivery of teacher salaries is critically needed in Sierras Leone's still developing and fragile economy. The proposed study could contribute to cutting waste in government expenditure, increase donor confidence in the Ministry of Education Science and Technology, reduce disaffection and mistrust among teachers and increase the overall performance in the education sector. A study that contributes to removing the teacher payroll leakages could create significant capacity for the Government of Sierra Leone to recruit new qualified teachers, offer incentives for serving highest need areas, and operate with a more durable governance structure. An effective and efficient teacher salary system is one of the most important elements of a high-quality education system in any country (INEE, 2009). Teacher pay is directly linked with expanding access to schooling which is why several efforts have been made by the Government and Education partners to tackle the menace. The situation continues to be one that proves elusive to resolve by government and its partners. This research is borne of recognition of the importance of issue and the fact that it continues to be relevant in the Sierra Leone context.

AIMS AND OBJECTIVES OF THE STUDY

This work aims to investigate the basis for achieving effectiveness and credibility in salary systems in Sierra Leone and the implications that these have for Teacher performances in the country.

OBJECTIVES:

In addition to the above aim, the study also looked at the following specific objectives, which play key role to the successful completion of the study. First, is to examine the various approaches that had been tried in management and delivery of Teacher salary system in Sierra Leone thereby showing the weaknesses and strengths of each system. Secondly, is to make evidence based analysis of the links or otherwise between the effectiveness and credibility in teacher salary systems used and performance of teachers. And finally, to proffer suggestions and recommendations on achieving effectiveness and credibility in teacher salary systems in Sierra Leone that is performance based.

RESEARCH QUESTIONS

In meeting the above stated research objectives, the following research questions are answered: Does Sierra Leone have effective and credible teacher salary system? Is the salary system it operates linked to teachers' performance?

HYPOTHESIS

The research is based on the hypothesis that there is no effective and credible teacher salary system in Sierra Leone that links performance based (H₀).

REVIEW OF RELATED LITERATURE

Over the last three decades, there has been an increasing interest in teacher effectiveness. But what is meant by "teacher effectiveness" within the performance-based context? Does it mean that many students achieve in standardized tests? Yes, but this is only one measure of teacher performance. In fact, students can achieve academic success without demonstrating one hundred percent mastery of course objectives or without passing standardized tests. Does it mean that a teacher has a long-term impact on students? Yes, but what about short term and mid-term impact? Lack of immediate impact may suggest ineffective teaching practices to some policy makers. Does it mean closing the achievement gap between advantaged and disadvantaged students? Does it mean motivating students to reduce the dropout rate? Does it mean

instilling academic resiliency in students? Does it mean masterful teaching? To delineate clearly the notion of teacher effectiveness, it is important to address all these questions. Clearly, a teacher can be effective with one group of students based on certain characteristics (gender, race, religion, age, and socio-economic status) but ineffective with another. A teacher can be effective with a small class but not so effective with a large class. A teacher can be ineffective in one school but effective in another. A teacher can be effective under one school leadership but ineffective under another. Finally, a teacher who is effective in one situation may not necessarily be effective in other situations. All of the above ideas show that teacher effectiveness is an extremely complex phenomenon.

Teacher effectiveness is quite an elusive and enigmatic concept. Its meaning varies depending on the context. As Goe, Bell, and Little (2008) put it, “Increasingly, policy conversations frame teacher effectiveness as a teacher’s ability to produce higher than expected gains in students’ standardized test scores” (p. 5). A group of educators at the University of Nottingham, School of Education, in United Kingdom, namely Day, Sammons, and GU (2008) recognize that this view is widespread among educational professionals and policy makers. They argue that “teacher effectiveness should be assessed in relation to outcomes”. By “outcomes”, they mean “measurable academic gains” in standardized tests. Blanton, Sindelar, and Correa (2006, p. 117) point out that the use of student outcomes, particularly achievement, as a measure of teacher quality enjoys strong support from both education professionals and the policy community. Day et al’s (2008) definition does not capture the true essence of teacher effectiveness because students’ test scores cannot be the only indicator of teacher effectiveness.

This study stands against this narrow view of teacher effectiveness. It argues that several factors have an influence over teacher effectiveness. Encapsulating teacher effectiveness in one measure—student test scores—is indeed perilous. Research has shown that multiple indicators should be used to assess teacher performance. The model of teacher effectiveness by Day, Sammons, and GU (2008) presented in figure 1 exemplifies that a host of factors contribute to teacher effectiveness. Those factors include student attitudes to learning, student attainment, student achievement (long term), teacher self-efficacy, school or department leadership and culture (including teaching practices and continuing professional development (CPD), students’ motivation and external social influences, and policy reform (conditions of service, standards, beliefs, and values).

Figure 1: Model of Teacher Effectiveness by Day, Sammons, and GU (2008)

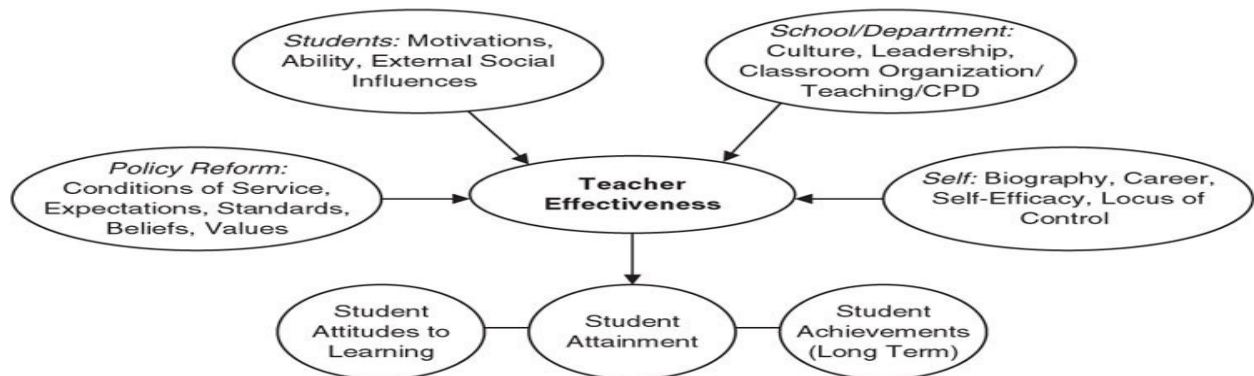


FIGURE 1. Hypothesized initial model of factors contributing to variations in teacher effectiveness. CPD = continuing professional development.

There is increasing acceptance that assessing teacher effectiveness based on results from one single

measure (test scores) fails to accurately indicate the many ways in which teachers contribute to their student success and well-being (Goe, Bell, and Little, 2008). Goe et al (2008) summarized a broad class of teacher evaluation instruments used to assess teacher effectiveness encompassing (a) classroom observations, (b) principal evaluation, (c) instructional artifact, (d) portfolio, (e) teacher-self-report measure, (f) student survey, and (h) value-added model (p. 15). This coverage leaves out more indirect measures of teacher competency such as teacher demonstrations of knowledge, teacher responses to theoretical teaching situations (i.e. structured vignette), and parent satisfaction surveys. It is crucially important to determine the validity of an evaluation instrument before using it. Blanton, Sindelar, and Correa (2006) propose six criteria to evaluate the models and measures of beginning teacher quality. The six evaluation criteria include: (1) Comprehensiveness, (2) Generality, (3) Utility, (4) Practicality, (5) Reliability, and (6) Credibility. According to Blanton et al (2003, p. 14), Comprehensiveness refers to the degree to which a measure captures all of the various aspects of teacher effectiveness. Generality refers to how well an instrument captures the full range of contexts in which teachers work. Utility refers to how useful scores from one instrument are for a specific purpose. Practicality refers to the logistical issues associated with a measure such as “costs, training requirements, the developmental work required to adapt an existing model or measure” for one’s own purpose. Reliability refers to the degree to which instrument measures something consistently. Finally, Credibility is a specific type of validity— face validity—that is particularly important in measures of teacher effectiveness. Goe et al (2008) strongly urge the appropriate use of these tools for different types of teacher evaluations (high-stakes, low-stakes, formative, and summative). It is recommended that school leaders are highly trained professional evaluators in order for these instruments to yield valid results.

In addition to these six evaluation criteria, the four basic types of measures used in human resource development (HRD) studies can be considered. They are (1) observational measures, (2) self-report measures, (3) objective measures, and (4) estimates. Swanson and Holton (2005, p. 35) describe observational measures as measures recorded by a person observing something. Performance ratings and checklists are examples. Self-report measures are described as a person in the study’s own report. Examples include a trainee’s report of training on the job or knowledge gained. Objective measures are measures taken by instruments or highly accurate measuring devices. Examples might include cost data, quality measures from equipment, or knowledge tests. Estimates refer to estimates of measures, usually by subject matter experts of these four measures, three (observational measures, self-report measures, and estimates) may be used for teacher evaluation. Teachers or student teachers may use self-report measures to record knowledge gained in professional development training sessions. One disadvantage of self-report measures of performance on the job, Swanson and Holton (2005) note, is that “people tend to overrate themselves” (p. 35). However, they can still generate useful insights. These three measures contribute to the validity and reliability of teacher evaluations.

Cooper and Schindler (2011) suggest three major criteria for evaluating a measurement tool. They include validity, reliability, and practicality. Validity is defined as “the extent to which a test measures what we actually wish to measure”; Reliability refers to “the accuracy and precision of a measurement procedure”; and Practicality “is concerned with a wide range of factors of economy, convenience, and interpretability” (p. 280). As educational planners consider teacher evaluation measure tools, they need to think about reliable, valid, and practical tools that can yield consistent results. Equally important is the measure of effective teaching. Anita Woolfolk, professor of Educational Psychology at Ohio State University, identifies three teacher characteristics that are vitally important for effective teaching. They include (1) knowledge, (2) clarity and organization, and (3) warmth and enthusiasm (Woolfolk, 2004). This characterization focuses on a three-dimensional approach. Many studies have adopted an integrative and

multi-level approach to teacher evaluation (Woolfolk, 2004; Goe et al, 2008; Darling-Hammond, 2000; Day et al, 2008).

Ultimately, there is a level of credibility that students expect from an effective teacher. Stephen D. Brookfield, author of a widely used book, *The Skillful Teacher*, proposes a few indicators of teacher credibility encompassing (1) expertise, (2) experience, (3) rationale, and (4) conviction. Brookfield (2006) reports that “Students say it is reassuring to know that the person in charge of their learning clearly knows, and can do, a lot” (p. 59). What qualifies a teacher to be regarded as an expert is the ability for the teacher to display a facility with the subject being taught. Regarding experience, “...students recognize pedagogical experience when the teacher not only knows the subject back to front but also is able to draw on a substantial history as the course instructor so that it allows her to teach it in a way that clearly helps students learn” (p. 61). The author notes that a backlog of experience enables a teacher to make informed decisions about learning activities. With respect to rationale, Brookfield (2006) argues that “Students say that it inspires confidence when they see that teachers clearly have a plan, a set of reasons, informing their actions” (p. 63). Finally, he notes that “conviction is recognized by students when teachers make it plain that they feel the subject matter, content, or skills being taught are so crucial that they want to explore every way they can make sure students have learned them properly” (p. 64). Indeed, these four indicators are essential to teacher credibility. However, some teachers may lack one (experience, for example) or two but still appear to earn students’ trust through hard work. Given the complex nature of teacher performance, it is argued in this paper that a comprehensive measure of teacher performance should include instructional artifacts, teacher portfolio, reflective journals, self-evaluations, peer evaluations, student evaluations, student portfolios, objective classroom observations, and videotaped lessons. Without these artifacts, it may be challenging to distinguish between perceived teacher effectiveness and measured (or observed) teacher effectiveness. Unfortunately, it may be time-consuming and, indeed, costly to evaluate all these instruments. As argued earlier, research has shown that several variables are used to measure teacher effectiveness. In 2006, three prominent educational scholars from Pakistan, Khan, Saeed and Kiran Fatima (2009) carried out a survey of 150 secondary school teachers in district Mianwali, Pakistan. They used the following variables: (1) leadership qualities, (2) instructional behavior, (3) capabilities of the interpersonal relationship, (4) professional attitudes, and (5) managerial abilities. The authors demonstrated the difficulty in measuring these variables. Indeed, measuring instructional behavior or professional attitudes of a teacher in an objective and credible manner is no easy task. In North Carolina, the new teacher evaluation tool that the Charlotte-Mecklenburg Schools adopted this year is centered around five standards: (1) Teachers demonstrate leadership, (2) Teachers establish a respectful environment for a diverse population of students, (3) Teachers know the content they teach, (4) Teachers facilitate learning for their students, and (5) Teachers reflect on their practice. Although these standards are good measures of teacher performance operations they may be quite challenging. This paper will also address the problematic of operations and measuring these constructs. But first, it is worth defining the nature and scope of Pay for Performance. Critical cogs of an effective teacher salary system strong financial and information management systems and resources are critical cogs for the building of an effective teacher remuneration system (Goldsmith, 2010). Where such cogs are not in place, governments struggle to meet the demands of teacher salaries. The financial resources necessary for the proper functioning of these cogs include the national government, communities and donors. The important elements of each of these systems are described in Table 1 below.

Table 1: Summary description of the parts of an effective teacher salary system

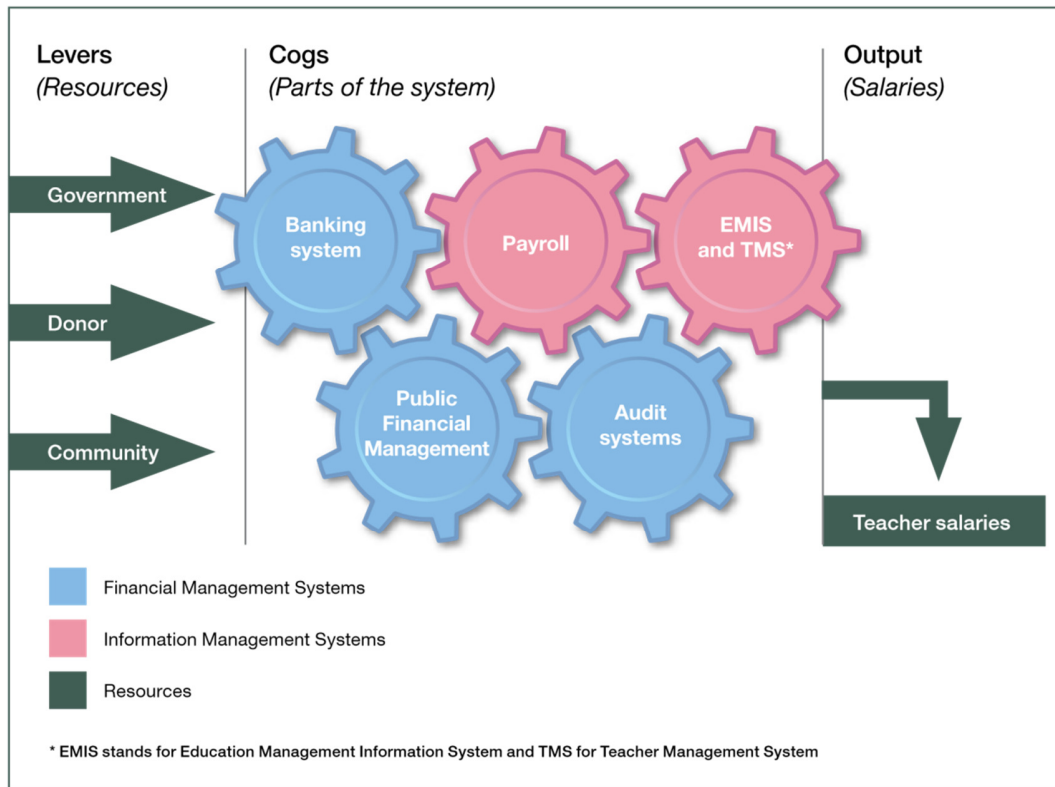
Table 1: Summary description of the parts of an effective teacher salary system	
Components	Purpose

Financial management systems	
Banking system	Provides reliable records and is relatively safe (i.e. less leakage than cash delivery) so is preferred mechanism for distributing teacher salaries
Public Financial Management (PFM) system	Helps to make public financial transactions transparent and accountable, reduces leakages and ensures that money is used for its intended purpose
Auditing systems	Help to strengthen PFM; internal and external auditing are important for tracking public expenditures
Information management systems	
Education Management Information System/ Teacher Management System (EMIS/TMS)	Collects and disseminates information necessary to ensure the efficient and effective practice of paying teacher salaries, i.e. information on teacher qualifications, years teaching, days present/absent, etc.
Payroll	Records names and numbers of teachers, salary and other important information for salary payment
Table 1: Summary description of the parts of an effective teacher salary system	

Components	Purpose
Resources/Funding	
Government	Ideally the primary source of funding for salaries, but often weakened/compromised in FCAS
Community	Can provide cash/in-kind contributions to teacher salaries
Donors	Play a significant role in providing funding and/ or technical support for teacher salaries

Table 1 illustrates the interdependent relationship between each of these cogs:

Figure 1: The cogs and levers of an effective teacher salary system



Of course, it is important to understand that each of the cogs above do not operate within a vacuum, but are very much impacted by external factors unique to the country within which they operate. The following sections will therefore discuss the background and development of the Sierra Leone teacher remuneration system and will provide an assessment of the current system by analyzing each of the critical cogs defined above.

Lack of development, and the collapse of state provision of government services and salaries (notably in the education and health sectors) from already minimal levels, provided the fuel for Sierra Leone’s civil war (Keen, 2002). Disenfranchisement of youth is routinely cited as one of the root causes of the insurrection, in which anger at a failing education system fed powerfully into the conflict (Richards, 1996; Keen 2002; Wessel’s, 2005; Paintin, 2008). As an instigator of the civil war, education was also its direct casualty. The Revolutionary United Front rebel army targeted many educational institutions in their attacks, destroying the majority of Sierra Leone’s primary and secondary schools, as well as targeting its teachers’ colleges and one of the country’s two universities (Integrated Regional Information Network, 2007; World Bank, 2007). The educational system came to a virtual standstill as a result of the war and was therefore a priority in the rebuilding of the country at its conclusion. The post-war Sierra Leone government introduced the Education Act of 2004, confirming compulsory primary education, the right to education, and a preference for trained and qualified teachers. With the abolition of school fees, primary net enrolment rates rose from 41 per cent at the end of the war to 63 per cent in 2004 (UNICEF, 2005; MEST, 2007). Notwithstanding this significant progress, the education sector continues to face huge challenges. Many of them are long-term consequences of the war; others are new challenges evolving from recent developments (Nishimuko, 2007). There are still many children, particularly girls, who are not in school (ActionAid, 2007). The country is in serious need of more schools and more qualified teachers to work in them; based on reports on Sierra Leone’s educational system, the country still has far too little of

both (Amman and O'Donnell, 2011). The most recent data¹ shows that there were 32,000 teaching staff at primary level and 10,000 at secondary level (Goldsmith, 2010; UNESCO, 2011). In Sierra Leone, the teachers' payroll dwarfs the remainder of the civil service payroll of 15,000, and the army of 8,000 (Goldsmith, 2010). Despite the size of the teaching force, there is an urgent need for the recruitment of better qualified teachers in order to meet the needs of a growing education system. However, efforts to do this have been constrained by restrictions due to a wage bill cap on public sector employees² and a general discontent within the teaching profession as teachers' salaries are routinely paid late (Amman and O'Donnell, 2011).

Total public expenditure on education represents 4 per cent of Gross National Product (GNP) (UNESCO, 2011: 337).³ The salaries of school and central education services staff on the government payroll make up 74 per cent of the total current spending on education (World Bank, 2007). The average monthly wage for a teacher in Sierra Leone was estimated at US\$40 per month in 2010 (Goldsmith, 2010), though there has been a significant pay rise in 2011.

In real terms, teachers pay only increased by 25 per cent between 1990 and 2004 despite workloads increasing appreciably (Harding and Mansaray, 2006). Whilst teacher pay compares quite favourably with equivalent occupations in the public service, teachers do not enjoy the same fringe benefits – such as housing, training, and care of dependants – as other civil servants. Moreover, new teachers usually work for a year or more before entering the government payroll and, when promoted, it takes time for this to be reflected in their salaries (Harding and Mansaray, 2006). Large numbers of teachers engage in secondary employment activities as a result of low salaries and late payment (Harding and Mansaray, 2006). In rural areas, teachers supplement their income by farming while in urban areas they conduct tutorials. Teacher morale is very low due to the regular late payment of salaries (Amman and O'Donnell, 2011), inadequate pay structure (Harding and Mansaray, 2006), unfair recruitment policies and practices, and an increasingly large burden of work (Amman and O'Donnell, 2011). Attrition rates are high, with many teachers leaving after four years' service due to the chronic delay or absence of pay and poor working conditions (ActionAid, 2007; Shepler, 2010). On the whole, teaching in Sierra Leone is seen as an unattractive and underappreciated profession, with teachers receiving low pay, often being paid late and in some cases not at all (Amman and O'Donnell, 2011). As discussed above, while considerable progress has been made since the war in terms of records management and the institution of bank payment, legacies of the conflict relating to capacity and the ability to levy sufficient resources – including weak internal controls, public financial management, and insufficient resources to pay teachers – continue to beleaguer the effectiveness of the teacher salary system in Sierra Leone.

Historical Evolution of the Teacher Payment System:

At independence in 1961, Sierra Leone's civil service was seen as amongst the best in West Africa, with government salaries and records being well managed (International Records Management Trust, 2008). The deterioration of the teacher payment system during the 1980s and early 1990s was accelerated by a long internal war at the end of the century. The government was left without the documentary evidence needed to manage the teaching service and in particular to maintain employment and payroll controls. Over time, political interference and military conflict led to a breakdown of government processes, and bribery and corruption were institutionalized; this had a serious consequence for the quality of record-keeping systems. The eleven-year long internal war, between 1991 and 2002, accelerated these trends, as burning and looting contributed to the deterioration of Sierra Leone's official evidence base. By the end of the war, teacher records systems had collapsed. Payroll control was seen as crucial to re-establishing political order,

¹ Data is for the school year ending in 2007.

² In 2005, the government of Sierra Leone took the decision to decrease the public sector wage bill from 8.4 per cent of GDP to 5.8 per cent by 2008, as a result of IMF advice. Although an estimated 8,000 teachers were needed to help the country deal with a massive out-of-school population after the brutal civil war, only 3,000 could be hired in 2004 (ActionAid, 2007). However, the wage-bill cap is no longer in place. ³ Data is for 2005.

but a series of efforts, from the 1990s onward, to establish control were undermined by persistent problems in verifying basic information on teachers. These problems originated from the breakdown of record-keeping and the consequent loss of documentary evidence (International Records Management Trust, 2008).

A series of donor initiatives, introduced from the early 1990s, aimed to strengthen financial, employment and payroll control. The initiatives were not always well coordinated, and plans to strengthen control were repeatedly undermined by the poor state of accounting and personnel records. By 1994, the European Commission was working with the government to draft new financial legislation and instructions, establish control of accounting systems and introduce new computer payroll software. Working with the Accountant General's Office (AGO), they launched a verification exercise for teachers and other areas of the civil service prior to introducing the software. The project recognised that paper records were a vital check-point to ensure the validity of the data, create confidence in the computerized system and to make it transparent. They noted that when the new payroll was introduced, it would be important to cross-verify the computerized payroll against the paper records. The teachers' payroll was of special concern as the AGO was paying approximately 19,000 teachers, while the Department of Education estimated the number of teachers to be 17,000.

A payroll verification exercise was conducted in 1996 in preparation for the new system. All teachers were asked to complete DELPHI forms covering personal, next of kin and employment details. The Department of Education was to check teachers' forms against the personnel records held in the department before returning them to the AGO, where the data was to be compared with the current payroll. Meaningful verification was hampered, however, by the state of the existing records. In early 1997, work started on the World Bank-funded computerized personnel information system, only to be disrupted by the military coup in May the same year, with large volumes of vouchers and other accounting records destroyed when the Treasury Building was burned. The remaining financial records were moved to the Ministry of Finance, ending up in many different offices, making verification very difficult (International Records Management Trust, 2008).

Payroll Verification, 1998 to 2002

With Sierra Leone facing a humanitarian crisis, establishing control of public financial management and verifying public service payrolls were high priorities for the international development agencies – the World Bank, International Monetary Fund, African Development Bank and European Commission were all involved. Public financial management reform, including payroll verification, was a precondition for approval of a structural adjustment/budget support package that was to be disbursed by the European Commission. The aim was to address weak systems that made it easy to tamper with financial data. It was symptomatic that there had been no report published by the Auditor General since 1979. In June 1998, the government, working with the international community, launched a new series of reforms with the aim of establishing a clean, controllable and 'ghost-worker free' payroll. Tighter payroll controls were introduced, and the European Commission employed consultants to fill key financial positions within government, with the aim of introducing proper accounting procedures and limiting the potential for corruption. A bespoke computerized Financial Management System to manage the payroll and expenditure control system and a Computerized Personnel Management Information System (CPMIS) were developed. Personnel Information Numbers (PINs) were issued to all legitimate public servants, including teachers. Teachers across the country were required to complete personal and financial data forms and to provide documentary evidence of employment status before a PIN could be issued. The minimum requirement was a letter of appointment; many of the letters submitted were found to be fictitious and were rejected. Before the registration process could be completed, a digital photograph had to be taken of the individual. The software automatically stored a unique PIN along with the name, designation, date of issue, work-unit and

work location linked to the image file. Once authorization was completed, the teacher was given a PIN, included on the payroll and issued with a photographic identification card. As in the past, the poor quality of existing records proved to be a stumbling block. A verification team was set up to check the data in the CPMIS against the personnel records to ensure data integrity. Special attention was to be given to the appointing document, date of birth, first appointment start date, designation and salary grade-scale. However, the checks could not be carried out because of the incompleteness of the records and the difficulties in retrieving them. Progress on the payroll verification was rapid except during periods of military action. As a result of the exercise, a significant number, nearly all teachers, were removed from the payroll. Out of a total of 61,000 teachers, 46,000 were removed, bringing the number of teachers on the payroll down to just 15,000 (the teachers' payroll then climbed to approx. 23,000 in early 1999 during a period of great insecurity when payment audits were impossible). Savings were roughly US\$3,600,000 per year across the civil service allowing for a net average increase in wages of 25 per cent.³ Perhaps even more significantly, as a result of the exercise, the Permanent Secretary of the Ministry of Education and several accountants were charged with payroll fraud and sentenced to terms in prison (International Records Management Trust, 2008).

Reforms since the end of the war, 2002 to 2011

Despite these impressive achievements, payroll control remained a major issue in Sierra Leone. Controls were still not in place to regulate the employment of teachers, and the key data required for sustainable financial control was still not available. Between 2002 and 2008, the teachers' payroll nearly doubled. The absence of strong records management controls, resulting in a weak evidence base, was a significant part of the problem. A number of major public sector reform campaigns have taken place in Sierra Leone during the decade since the end of the war in an effort to address the situation. These have included the implementation of a centralized computerized payroll system (run from the Accountant General's Department at the MoFED), the making of payment directly into teacher bank accounts (payment of teacher salaries had previously been made to schools' accounts or to provincial headquarters, collected by head teachers and subsequently paid out to teachers in cash), and the Records Management Improvement Programme. The geographic dispersal of the teaching force meant that a disconnect occurred between the real number of teachers, centrally-held teacher payroll data and MEYS' own records. This was compounded by a particularly complicated recruitment process (going all the way up to the Permanent Secretary of the MEYS), reportedly taking years⁴ to complete, meaning that schools usually recruited staff well ahead of their official appointment (Goldsmith, 2010). In order to overcome this, disconnect, and in order to overcome the problem that no credible data existed regarding the number of teachers at the Planning Directorate of the MEYS in Sierra Leone – along with the belief that the payroll was seriously inflated – a physical head count of teachers was conducted in 2008 to inform the EMIS that had been established in 2006. In order to maximize use of enumerator time and minimize travel, incentives were paid to teachers to attend enumeration sessions in District centers. Without the restriction that local scrutiny imposes on a headcount conducted in the school itself, the obvious risk in this approach was that not all who came forward were genuine teachers. Perceptions that this was the case, as well as other concerns, meant that the data received limited use (Goldsmith, 2010).

The planning directorate has since worked toward improving the quality of teachers' data in Sierra Leone. In addition to the physical head count of teachers, it has proposed that a reconciliation of data from the teachers' head count, the Ministry's Records Section and the Teachers' Payroll be made; that there is a streamlining of the Teachers' Management System, including the recruitment process of teachers; and a

³ Savings from the exercise allowed for an increase in basic salaries, a reduction in tax-rates and the introduction of additional allowances, including a substantial transport allowance for all permanent and pensionable teachers.

⁴

modernization of the Teachers' Records Section. Establishing whether a teacher is a bona fide teacher is in no way trivial – some may have been hired and employed by a school, but not yet appointed by a Ministry. Others might have been employed by a school but may have never been appointed (as in the case of a school that is neither government-assisted, nor government-owned). Teachers may or may not be already teaching, and often they are not aware themselves of the intricate details of teacher recruitment and in what stage their application for employment may be at. These are all issues of relevance to Sierra Leone's teacher payment system.

Cogs in the teacher salary system

As discussed above, the key challenge that the teacher payment system has faced in Sierra Leone since the 1980s has been in relation to records management and payroll verification. The destruction of records, the lack of capacity and controls in place to manage and update them, and incentives that inaccurate or incomplete records create for malfeasance are all strongly linked to the 'cogs' in an effective teacher payment system. Inadequate teacher records have played a large part in undermining the system, as well as a number of attempts to improve it. The management of teacher records is strongly linked to payroll consequences where inadequate records have been kept on teachers this has hampered accurate payroll information, meaning that some teachers are not registered, allowing for the registration of ghost teachers, and making it impossible to conduct verification exercises of the payroll. This in turn has consequences for public financial management as it is likely to result in incorrect payments being made, the late payment of teachers, or teachers not being paid at all. Indeed, communications problems between districts and the centre, and between MEYS and central Human Resources Management Office mean that there has been divergence between payroll lists and the reality of who is teaching on the ground (Goldsmith, 2010). Moreover, it complicates budget negotiations as where there is inaccurate information on the number of teachers, insufficient resources are likely to be allocated in support of teacher salaries – or indeed, too much can be paid out in recurrent costs to non-existent staff.

As outlined above, Sierra Leone has found it difficult to convert expensive headcounts into meaningful payroll results. Key issues have been difficulties in matching data, and the lead-time and process to convert headcount information into payroll consequences. Rather than start from a 'blank sheet of paper', Sierra Leone has decided to first clarify who is being paid, and then gradually verify the payroll (Goldsmith, 2010). A further issue in relation to the management of information on teachers is that the flow of information between schools and MEYS has not been as effective as it might. Amman and O'Donnell (2011) comment that the SLTU has been credited by some head teachers as having more accurate information about the problem of ghost teachers and even the number of unpaid community teachers in the country's school system than MEYS. For its part, the SLTU has offered to join with MEYS to collect more accurate data on teachers; however, up to now, the ministry has been reluctant to do so. Where progress has been made elsewhere, for example in the institutionalization of bank transfers direct to school accounts, the pervasiveness of inaccurate data on teachers means that confidence in the new banking system is likely to be low. In addition, payment into banks means that there is not the monthly check on output as there would be with cash payments (Goldsmith, 2010).

Key Challenges

The key challenges facing Sierra Leone's teacher payment system are very much interlinked, and all related to the teacher payroll. Accuracy of information, capacity and resources are all vital elements to ensure its efficient functioning. Donors have supported these by providing technical assistance, supporting capacity building in auditing and financial management, both within and outside the government system, as well as funding the development of information management systems. However more needs to be done as the challenges of ghost teachers, inadequate teacher records and payroll management continue to plague

the effectiveness of Sierra Leone's teacher payment system. Inclusion of community teachers onto the government payroll is another very big challenge.

Ghost Teachers:

For several decades, Sierra Leone has had a significant percentage of ghost teachers, not legally occupying the positions for which they are receiving pay. The Minister of Education has accused officials in his own department of collusion with their counterparts in MoFED, which pays out salaries, of defrauding the government by paying salaries and subsidies to non-existent teachers and schools (Thompson, 2010). Indeed, the country's anti-corruption commission has labeled MEYS as one of the most corrupt departments in the government (Fofana, 2008). The current President, Ernest Bai Koroma was determined to fight graft in the public service and as such has organized an inquiry into the education system. The teacher payroll verification exercise currently under way, intended to remove ghost teachers from the payroll, is a further effort to combat what is endemic corruption within the education sector. There is widespread recognition, however, that payroll verification is insufficient as a sole means of addressing the problem of ghost teachers. Reforms in grading and salary structure, effective employment and payroll controls are also needed to disincentivise the practice (International Records Management Trust, 2008; Amman and O'Donnell, 2011).

Inadequate Teacher Records and Payroll Management

By the end of the war, records systems in all areas of government – and in particular records on teachers – had decayed into informality and there were no common policies, standards or procedures for record-keeping. Controls were so weak, and the records were so incomplete, that it was almost impossible to retrieve accurate and reliable information. Records staff were untrained and severely demoralized by the lack of equipment and supplies, leaving wide scope for bribery. The digitization of state functions and processes further highlighted the need for accurate and reliable records (International Records Management Trust, 2008). Sierra Leone's most recent attempt to tackle teacher records management problems as part of the process of conducting payroll verification exercises and of introducing controls provides valuable lessons for other countries facing similar issues: It is essential to develop and manage complete and reliable teacher personnel records. Routine records management controls are needed to prevent ghost teachers finding their way back onto the payroll.

To ensure that evidence of employment is up to date, records procedures must be integrated with pay and personnel management procedures. High-level ownership is essential in endeavour's to establish accurate documentary evidence for employment and payroll management. Key education stakeholders should be involved in design and oversight (International Records Management Trust, 2008).

Whilst donors such as DFID and the European Commission are funding the payroll verification exercise, in practice GoSL has found that the savings and process improvements justify funding investment from its own resources (Goldsmith, 2010).

Bringing Community Teachers onto the Payroll:

Since the end of the war, communities throughout Sierra Leone have rebuilt old schools or started new schools that are not registered with MEYS. Teachers in these schools are often untrained and unqualified community teachers paid stipends by the community. It is also common for community teachers to teach in schools registered with the ministry although they are not on the government payroll. The community teacher works in the hopes of someday being recognized by the ministry and getting a regular salary (Amman and O'Donnell, 2011). The education system then is a mix of trained and untrained teachers, some of whom work in registered government schools and others in schools neither registered nor recognized by the government. Since 2009, the SLTU (Sierra Leone Teachers Union) has been at odds with the ministry over 3,000 community teachers it claims should be absorbed onto the government payroll. But this has not happened, despite the ministry's own statement of intention to recruit 2,000 new teachers

(Fofana, 2009). Systematic verification of these teachers, their qualifications, and the schools they teach at is urgently needed if the government payroll is to adequately reflect the true size of the nation’s teaching force.

RESEARCH METHODOLOGY

Research Design

Research design that determine an impacts to the condition for data collection and analysis. It offers the glue of the research project that holds them together. It is used to structure the research, to show how all of the major parts of the research project the samples or population, programs, and methods work together addressing the central research questions. Across-sectional design was used in this work; both quantitative and qualitative approaches were used to collect data. Qualitative approach was used to describe the process and characteristics of the payroll system and teacher performance in the selected schools in Sierra Leone and quantitative approach used to analyse the data so collated. Since Kenema District in the Eastern Province forms part of Sierra Leone, we therefore selected few schools in the Kenema District for this design. The design is considered appropriate for generalizing the findings over the schools’ population in Sierra Leone.

Population and Sample

The study population was 116 staff and non-staff of the selected schools. This comprised of 9 principals and head teachers, 6 Bursars, 35 head of departments, 24 senior teachers, 36 junior teachers and 6 school management committee members. A sample was selected from this population. The study was carried out using purposive sampling as these respondents were viewed as those involved directly in the day to day management of the selected schools. every sector that is involved in the school management ranging from school management committee to the ordinary teacher in the school because of their importance and roles played in the school management, principals and head teachers, bursars, heads of departments and representative of school management committees, total population was targeted for sample whilst senior and junior indirectly in the day to day management of the schools in question and therefore most suitable for giving adequate information on this study. Questionnaire was administered as in the under-mentioned table and interview was also conducted the standard is that for research activities, educational and psychological surveys, sample size of respondents should be determined using Krejcie and Morgan (1970) tables. According to the tables, the appropriate sample size of a target population of 116 is 80 respondents (about 69%).

Table3.1: Population and Sample Composition

N0.	Category	Population	Sample	%
1	Principal/Head Teacher	9	9	100%
2	Bursar	6	6	100%
3	Head of Department	35	35	100%
4	Senior Teacher	24	12	50%
5	Junior Teacher	36	12	33%
6	School Management	6	6	100%

	Committee Member			
	Total	116	80	69%

Table3.2: Sample Distribution by Division/Unit Worked

N0.	Category	Sample	%
1	Administration	15	19%
2	Academic	59	74%
3	SMC	6	8%
	Total	80	

Table3.3: Sample Distribution by Age Distribution

N0.	Category	Sample	%
1	Under 20 yrs	8	10%
2	20 - 40 yrs	38	48%
3	41 - 60 yrs	32	40%
4	Over 60 yrs	2	3%
	Total	80	

Table3.4: Sample Distribution by Level of Education

N0.	Category	Sample	%
1	Postgraduate	12	15%
2	Graduate	32	40%
3	Undergraduate	20	25%
4	School Leaver	10	13%
5	Others	6	8%
	Total	80	

Table3.5: Sample Distribution by School Type

N0.	Category	Sample	%
1	Senior Secondary School	30	38%
2	Junior Secondary School	27	34%
3	Primary School	23	29%
	Total	80	

The study was carried out using convenience sampling where people were selected as respondents for their role in the organization and willingness or ease of volunteering.

Instrumentation

Questionnaires and direct personal interview were used to collect the primary data from the selected respondents. This was done using set of structured questions. The questionnaire for this study was based on research topic. From these questionnaires, seventy-one (71) questions were developed and administered to assess respondents' evaluation of the effectiveness of current teacher payroll system and their performance in Sierra Leone. The questionnaire had three sections. Section A requiring for the personal data and Section B looked at the perilous cogs of an effective teacher salary system: Financial management system (40) questions of which banking system (6), public finance management system – PFMS (7), auditing system (7), educational management information system – EMIS (6), payroll system (16) and Resources needed to run an effective payroll system (13) questions in all. Section C: considered the teachers' performances in the selected schools in Kenema District with only ten (10) questions. The questionnaire was developed on a five point scales measuring from strongly disagree as response 1 to strongly agree as response 5 (Sekaran, 2003). All questions were arranged in one direction and all the constructs were operationally defined. The design of the questionnaire made no provision for explanation in the form of opinion and to proffer suggestions. This coupled with the use of personal interview for few persons for time exigency or reason of anonymity also aided our increased response rate. However, the questionnaire was questioned by some respondents as very plenty but did not however affect their responses.

Data Collection

Data collection format in any research is very crucial in any dissertation and is dependent on the type of data to be collected. However, in this study, both primary and secondary data were used since both are needed for this work.

Primary Source

By use of self-administered questionnaires and direct personal interview, primary data was collected from a selected sample of respondents in the six selected schools in the district. However, because of issue of anonymity, some respondents were interviewed which increased our response rate.

Secondary Data

Secondary data was collected from records of the selected schools and ministry of education, journals, books, internet libraries, documents and reports from various teacher verification exercises. Secondary data is somehow important in research for comparing the results from primary source with that of past

publications. Also, result collected from primary source could be compared with standards set by external professional bodies and also scholarly articles or publications. The payroll system (as the independent variable) was measured by its constructs of financial management system vis-à-vis salary payment method (banking system), public financial management system and audit system; information management system vis-à-vis payroll management and data management system; and the resources needed to fund the systems (Goldsmith, 2010). Teacher performance (as the dependent variable) was measured using Self-motivation (was measured by teachers' attitude, development aspiration and biography), School motivation (by culture, leadership style, classroom organization), Student motivation (attitude to learning, ability and social influence) and Government policies (standards, conditions of service, expectations etc.). These were measured using an instrument developed on a five point Likert scales measuring from strongly disagree as was very high response rate as reflective in the sampling method used, i.e. Sampling technique which targeted those staff those are directly related to the work and may be more willing to respond to the questions with ease. There was an average response rate of ninety percent (90%), with only eight (8) non-responsive of the eighty (80) respondents.

Response Rate

There was very high response rate as reflective in the sampling method used, i.e. Sampling technique which targeted those staff those are directly related to the work and may be more willing to respond to the questions with ease. There was an average response rate of ninety percent (90%), with only eight (8) non-responsive of the eighty (80) respondents.

Data Processing and Analysis

Data was collected, edited and was analyzed using Statistical Package for Social Scientists (SPSS). Analysis output included; Descriptive statistics (means, standard deviation, frequencies, percentages and factor analysis), and inferential statistics (correlations, and regressions).

RESULT AND DISCUSSION

The payroll account for one of the main areas of expenditure in every organization globally. In a developing country like Sierra Leone, the payroll accounts for the second highest area of public expenditure after procurement. The ministry of education being the highest employer of public service as the government employs more than eighty-five percent (75%) of teachers in Sierra Leone with the remaining being employed by the private sector as well as communities. We should note that government pays salaries of almost all faith-based owned schools otherwise known as mission schools in the country. The result of the research findings revealed that Sierra Leone does not have the required financial management system in place for effective teacher payroll system. There are some policies in place and the willingness on the part of the government to improve the system but what lacks is the implementation of the existing systems. There is no comprehensive data for all teachers and the records/files are not well kept. The TSC is not well decentralized as it's a new phenomenon but it should be fully decentralized at district level. Most teachers are paid through commercial banks but not absolutely across the whole country. There are serious challenges in this regard especially in areas not accessible by commercial banks. Payroll audit on teachers are done seldom by ASSL not to talk of ministry's internal auditors. In fact, the internal audit staffs are not adequate. It also came clearly that; the ministry of education is not really under-funded by donors but rather donor funding not well coordinated. Schools payroll are not adequately funded and this need to be put in place and hence ensure that all agencies operating in education in the country have well-coordinated plans in line with government strategic plans. Communities struggle to cope with the welfare of community teachers that accounts for considerable number of teachers in the country and these community teachers need to be on the government payroll. The government does not have the financial capacity to run schools in the country though it should. Government however,

should strive to be autonomous in education as a long-term plan. In summary, there are some standard systems in place for effective teacher payroll system but need to be improved. The political will is there for this but to enforce compliance is the problem.

2	The public sector uses automated accounting package for accounting	286	4.00	2	5
3	There is proper internal control system in the public-sector finance for teacher payroll system in Sierra Leone	142	2.00	1	3
4	There is value for money (VFM) in every transaction they carried out	140	2.00	1	3
5	Teachers' salaries are fully budgeted at school level on to national level	84	1.00	1	2
6	Revenue generated by schools are captured and fully accounted for by school authorities	141	2.00	2	4
7	Schools generates financial reports and periodically send to TSC through its district offices	80	1.00	1	2
	Total	1,145	2.29	1.43	3.43

Auditing System

1	There is standard audit and control system in the public sector in Sierra Leone	270	4.00	2	5
2	There are internal auditors in the ministry of education offices across the country	136	2.00	1	3
3	One of the responsibilities of the Internal Auditors is to check the teacher payroll of the district before forwarding to finance ministry for processing/payment	136	2.00	1	3

4	Ministry of Education activities including teacher payroll are audited every year by the statutory audit body, Audit Service Sierra Leone (ASSL)	138	2.00	1	3
5	All issues raised in the audit by ASSL, especially on payroll administration are followed up during the year and prior to the other coming audit	86	1.00	1	2
6	All issues raised in the audit by ASSL, especially on payroll administration are addressed by the appropriate authorities	90	1.00	1	3
7	All audit issues and responses are well documented and kept in a file at the Ministry of Education respective offices across the country	150	2.00	1	3
	Total	1,006	2.00	1.14	3.14

Education Management Information System (EMIS)/Teacher Management System (TMS)

1	There is updated data on teachers in Sierra Leone	151	2.00	1	3
2	Teachers are recruited through their respective schools and data sent to the Teacher Service Commission (TSC)	294	3.00	2	5
3	There are sub-offices of the TSC at district and regional level	140	2.00	1	2
4	The TSC maintains data including biodata, education and employment using automated software package	234	3.00	2	4
5	Complete data including copies of document of teachers are kept and filed in their respective schools and at the TSC sub-offices in the districts	142	2.00	1	3
6	Summary data are kept in the regional offices of	140	2.00	1	3

	TSC as well as the headquarters in Freetown				
	Total	1,101	2.33	1.33	3.33
Payroll System					
1	Regular payroll audits are done on the teacher payroll in the Ministry of Education in Sierra Leone	137	2.00	1	2
2	The payroll audits are done by both Internal auditors and auditors from Audit Service Sierra Leone (ASSL)	241	3.00	1	3
3	Standard payroll audit checklist is used for all the payroll audits on the teacher payroll	256	3.00	1	3
4	Issues arising from the audit are followed up and dealt with immediately	92	1.00	1	2
5	Regular surprise payroll payoffs are performed, whereby employees must pick up and sign for their cheques in the presence of a supervisor and the auditor.	84	1.00	1	2
6	Unclaimed cheques are investigated afterwards.	149	2.00	1	3
7	Payroll reports for teachers are generated regularly	157	2.00	1	3
8	The payroll reports so generated are reconciled with the general ledger record and any large or unusual amount are reviewed accordingly	146	2.00	1	3
9	Payroll information are initiated from the schools, endorsed/authorized by its heads and forwarded to finance for processing through the Teacher Service Commission (TSC)	85	1.00	1	2
10	Record of teachers' attendance are used for	83	1.00	1	2

	payroll data to be sent to finance for processing				
11	Payroll impress account is used for teacher salary payments	289	3.00	2	4
12	Check is made on teachers' existence at school level	140	2.00	2	3
13	Ensure employees complete data are kept and filed at school level as well as district level	142	2.00	1	3
14	Summary data are kept at regional and national levels	146	2.00	1	3
	Total	2,147	1.93	1	3
	Grand Total (FMS)	6,575	2	1	3

Source: Primary data

Table 4.2: Resources Needed for the Teacher Payroll System in Sierra Leone

No.	Item/Question	Total Scores	Mean Score	Min	Max
Resources Needed					
Government					
1	Government of Sierra Leone has the financial capacity to run all government owned and assisted schools in the country	78	1.00	1	3
2	Government of Sierra Leone is able to pay all teachers in the country without relying on donor funding	77	1.00	1	3
3	Self-sufficiency in education sector is a major determinant for its development in Sierra Leone	340	5.00	3	5
	Total	495	2.33	2	4
Communities					
1	Local communities play vital roles in the	300	5.00	3	5

	management of schools in Sierra Leone				
2	Communities struggle to finance community schools in Sierra Leone	312	5.00	3	5
3	Community schools accounts for significant percentage of the total number of schools in the rural areas in Sierra Leone	302	5.00	3	5
4	Community schools are integrated into the teacher community and hence the payroll system in the education sector in Sierra Leone	79	1.00	1	3
	Total	993	4.00	3	5
Donors					
1	Funding of schools is a major factor in the education problem in Sierra Leone	324	5.00	4	5
2	Ministry of Education is underfunded by donor communities in Sierra Leone	200	3.00	2	5
3	Schools' Payroll system are not adequately funded	299	4.00	3	5
4	Donor funding in education sector are not well coordinated	342	5.00	4	5
5	There are some misplacement of priorities or double dipping among the NGO in education sector	280	4.00	3	5
6	Education programs plans must be in line with Government plans and coordinated and monitored by the Ministry of Education and local government	356	5.00	4	5
	Total	1801	4.33	3	5
	Grand Total (Resource Needs)	3,289	3.56	3	4.39

Source: Primary data

Table 4.3: Teacher Performance in Sierra Leone

No.	Item/Question	Total Scores	Mean Score	Min	Max
Teacher Performance					
Self-Motivation					
1	Teacher self-efficacy is vital in his performance/effectiveness	350	5.00	4	5
2	Most teachers are in the classrooms because they have no alternative	301	4.00	3	5
3	The rate of professional and non-professional teachers in schools in Sierra Leone are less than half	300	4.00	3	5
4	Most of the performing teachers in schools in Sierra Leone are non-professional teachers	304	4.00	3	5
	Total	1255	4.25	3.25	5.00
School Motivation					
1	Student/teacher relationship are one of factors responsible for the appalling performance in Sierra Leone	310	4.00	3	5
2	There is Continuing Professional Development (CPD) for teachers in schools in Sierra Leone	324	4.00	3	5
3	Leadership styles in schools are demotivating for teachers' performance	300	4.00	3	5
	Total	934	4.00	3	5
Student Motivation					
1	Student/teacher relationship affects teacher performance in Sierra Leone	306	4.00	3	5
2	Student long term achievement affects teachers'	310	4.00	3	5

	effectiveness/performance				
3	External social influences are major determinants for the state of education in Sierra Leone	316	4.00	3	5
4	Students attitude to learning is a major determinant to teacher performance/effectiveness	341	5.00	3	5
	Total	1273	4.25	3	5

Government Policies

1	There are adequate government policies in place for education in Sierra Leone	296	4.00	2	5
2	There is commitment by government to improve education in Sierra Leone	290	4.00	3	5
3	Government education policies in Sierra Leone are not discriminatory	299	4.00	3	5
4	Conditions of service for teachers in Sierra Leone are adequate	141	2.00	1	3
5	There is a standard code of ethics for teachers in Sierra Leone	286	4.00	2	4
6	Every teacher is aware of the code of ethics as well as education policies	200	3.00	2	4
7	There is commitment by government to enforce education policies in Sierra Leone	234	4.00	2	5
	Total	1746	3.57	2	4
Grand Total (Teacher Performance)		5,208	4.02	3	5

Source: Primary data

Discussions of the Results

This section presents results from the data analysis and their interpretations. These are mainly inferential statistics and descriptive statistics of Bar Graphs .To give a more meaningful picture of the data used in the study, tables of figures used are represented in addition to the Bar Graphs. The data were analyzed using the Spread Sheet from the Statistical Package for the Social Sciences (SPSS).

Gender of the Respondents

Table4.7: Gender of respondents

Gender	Frequency	Percentage (%)
Male	48	66%
Female	24	34%
Total	72	100%

Source: Primary data

The results in Table 4.7 above reveal that the majority of the respondents were male representing 66% and the females constituting 34%. This shows that the views of the respondents were from both genders of employees were represented in the selected schools in Kenema District.

Unit worked of respondents in the Organization

Table4.8: Units/place of work of respondents

Unit	Frequency(F)	Percent(%)
Administration	12	17%
Academic	54	75%
School Management Committee (SMC)	6	8%
Total	72	100%

Source: Primary data

According to Table 4.8

Above; a majority of the respondents covered by the study were academic staff forming a total of 75%, with the least being the school management committee of 6%. The Administrative staff registered 17%. This shows that the view so fall categories of staff and non-staff are included in this result.

Position of Respondents in the Organization

Table4.9: Positions of respondents

Unit	Frequency(F)	Percent(%)

Principal/Head Teacher	9	13%
Bursar	6	8%
Head of Department (HOD)	30	42%
Senior Teacher	10	14%
Junior Teacher	12	17%
School Management Committee	5	7%
Total	72	100 %

Source: Primary Data

According to Table 4.9 above; most of the respondents covered by the study were Heads of Department of 42%, followed by junior teachers (17%) and then senior teachers and principals’/head teachers of 14% and 13% respectively. This shows that the views are mainly from senior staff thereby increasing the credibility of the result.

Educational Background of Respondents

Table4.10: Educational qualification of various respondents

Unit	Frequency(n)	Percent(%)
Postgraduate	11	15%
Graduate	30	42%
Undergraduate	19	26%
School leaver	8	11%
Others	4	6%
Total	72	100 %

Source: Primary Data

From the table above, 42% constituting majority of the respondents of this study were graduates from recognized universities. 57% accounted for respondents with higher education (graduates and postgraduates) whilst 17% were respondents with non-tertiary education and this gave more reliability on

the result.

Age Bracket of the Respondents

Table4.11:Age distribution of the respondents

Years	Frequency	Percent
Under 20 yrs.	2	3%
20 - 40 yrs.	36	50%
41 - 60 yrs.	32	44%
Above 60 yrs.	2	3%
Total	72	100%

Source: Primary Data

Results in Table4 .11 shows that most of the respondents were between 20-40 years of age (i.e.50%) followed by those between41-60yearsbeing44%. There were very low rates for the other age groups. The results show that the respondents were in the good age bracket to make informed decisions.

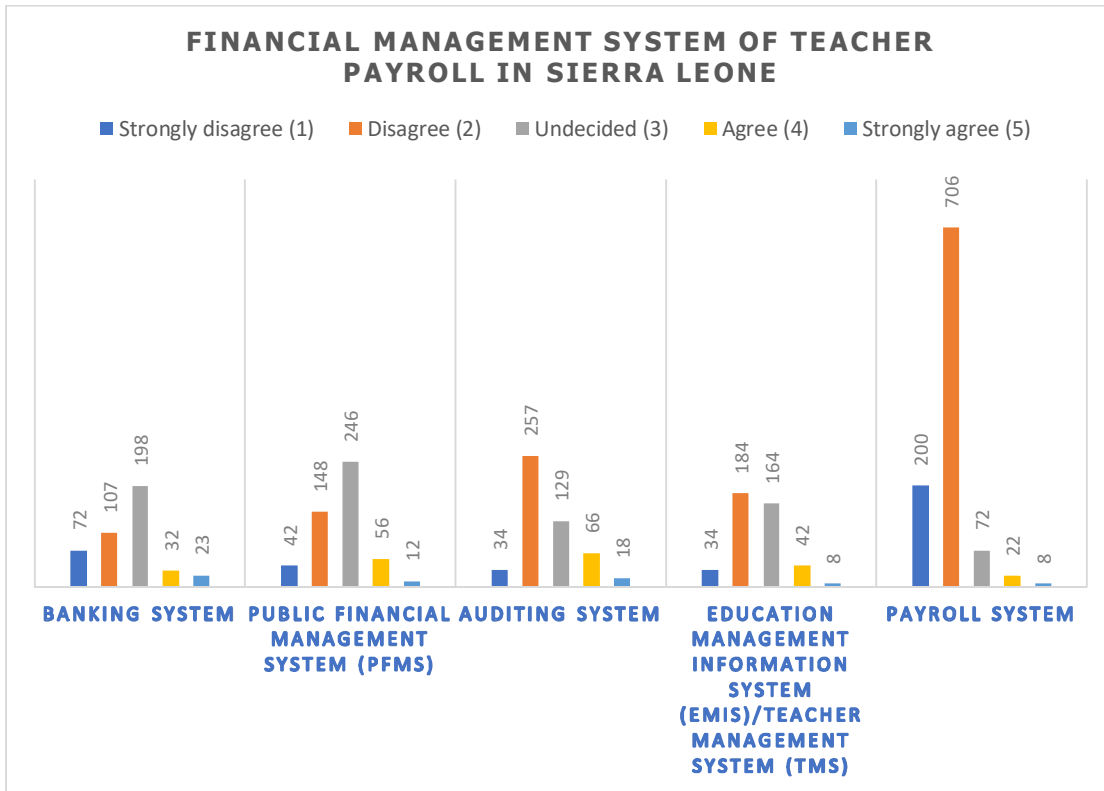
FINANCIAL MANAGEMENT SYSTEM OF TEACHER PAYROLL SYSTEM IN SCHOOLS

Financial Management System of Teacher Payroll in Schools						
	Strongly disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly agree (5)	Total
Banking System	72	107	198	32	23	432
Public Financial Management System (PFMS)	42	148	246	56	12	504
Auditing System	34	257	129	66	18	504
Education Management Information System (EMIS)/Teacher Management System (TMS)	34	184	164	42	8	432
Payroll System	200	706	72	22	8	1,008

Total	382	1,402	809	218	69	2,880
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Table 4.13: Summary of scores of financial management system of teacher payroll in schools.

Figure 4.1: Bar Graph showing the financial management system of teacher payroll in schools



Response Category

Source: Primary data

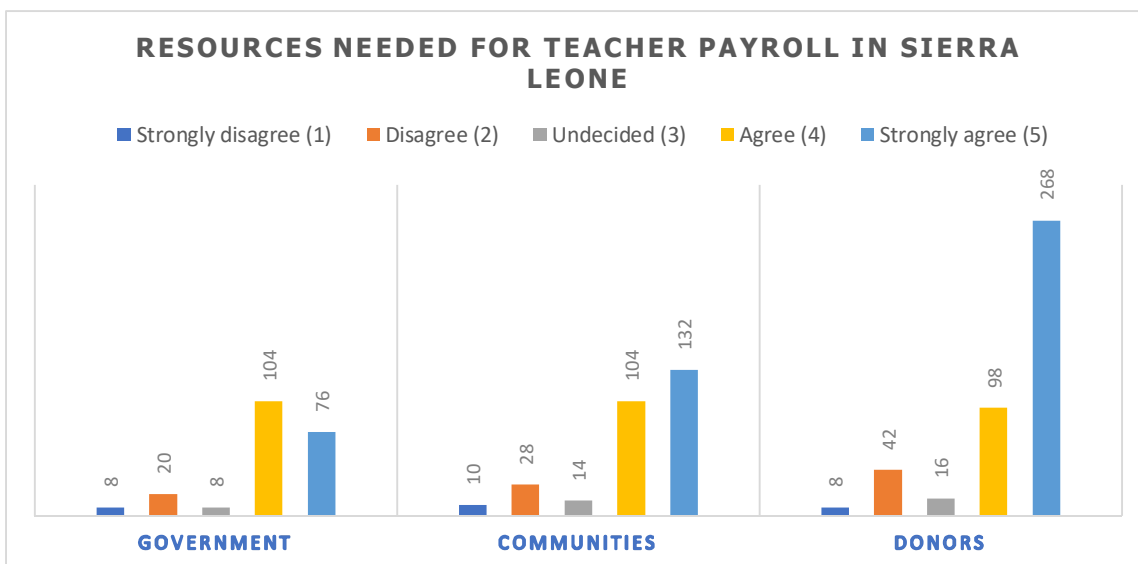
Data presenting the figure above indicates that majority of the respondents perceive the financial management of teacher payroll system in schools in Sierra Leone is not effective. This is indicative of the fact that 49% of the respondents disagreed and 13% strongly disagreed whilst 28% undecided to the assertion that there is an effective financial management system in the teacher payroll management in schools in Sierra Leone. However, a few of the respondents (8%) agreed and 2% strongly agreed.

RESOURCES NEEDED FOR TEACHER PAYROLL IN SCHOOLS

Resources Needed						
	Strongly disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly agree (5)	Total
Government	8	20	8	104	76	216
Communities	10	28	14	104	132	288
Donors	8	42	16	98	268	432
Total	26	90	38	306	476	936

Table 4.14: Summary of scores of resources needed for teacher payroll in schools

Figure 4.2: Resources Needed for Teacher Payroll in Schools



Response

Category

Source: Primary data

It came out very clearly that most of the respondents were in agreement that government, communities and external donor communities are the main sources of funding for effective teacher payroll system in schools in Sierra Leone and that proper coordination of funding plans among donor agencies in line with government strategic plan of the education sector. This is indicated by the 51% and 33% all respondents in this category strongly agreed and agreed respectively with that assertion

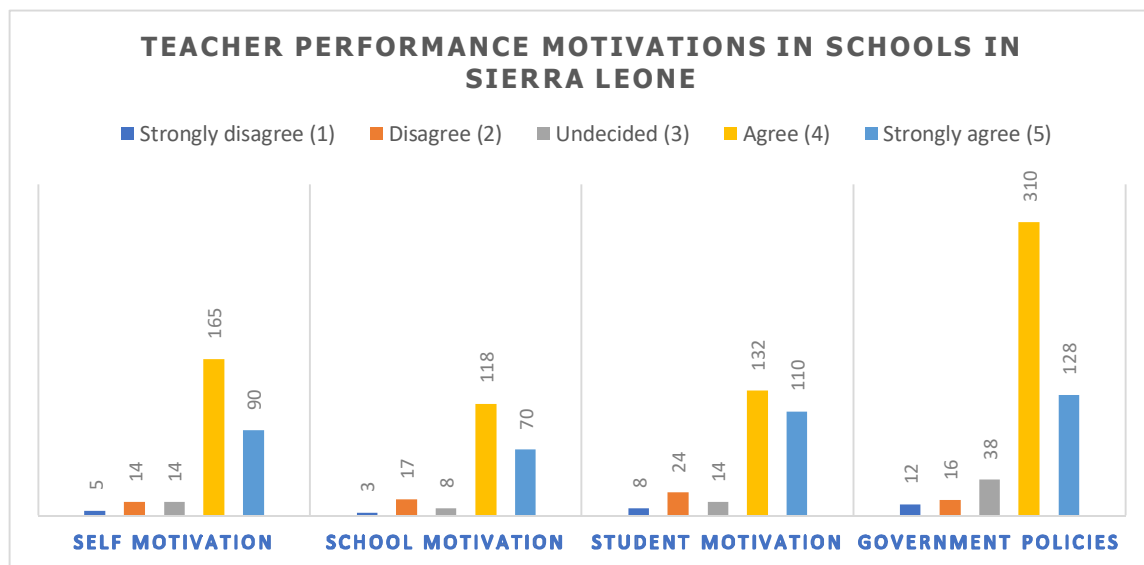
above whilst 3% and 10% strongly disagreed and disagreed respectively. However, some of the respondents (4%) could not indicate their views on the construct being measured and therefore remained undecided.

TEACHER PERFORMANCE MOTIVATIONS

Teacher Performance Motivations					
	Strongly disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly agree (5)
Self-Motivation	5	14	14	165	90
School Motivation	3	17	8	118	70
Student Motivation	8	24	14	132	110
Government Policies	12	16	38	310	128
Total	28	71	74	725	398

Table 4.15: Summary of scores of teacher performance motivations

Figure4.3: Teacher performance Motivations in Schools



Response Category

Source: Primary data from the results presented in figure 4.3 above indicate that majority of respondents of the questionnaire perceive that teacher performance in schools in Sierra Leone are motivated by 4 factors; self, school, students/pupils and the government policies in schools. 31% strongly agreed and 56% agreed with the above. However, 2% and 5% strongly disagreed and disagreed respectively whilst 6% remained indifferent (undecided)

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

This study was design and carried out to establish the effectiveness of teacher payroll system in schools in Sierra Leone Teacher performance was linked to the effective payroll system in schools in Sierra Leone. This chapter gives the discussions, conclusions and recommendation of the research findings presented and interpreted in chapter four. Also suggested areas for further research are also presented and of which are presented in accordance to the research objectives.

Teacher Payroll System in Schools in Sierra Leone

Teacher payroll system in schools in Sierra Leone is not effective, the research findings revealed. The result further revealed that banking system, public financial management system, audit system, management information system and payroll management system are the constructs of teacher payroll system in schools. This is in line with the findings of Victoria TURRENT, 2012. The research also revealed that the banking system in the country is to a significant extent ineffective as commercial banks are not everywhere in the country and not all commercial banks in the country are involved in mobile banking. Also, the mobile money transfer which could be used to support the commercial banking where they are ineffective is not well developed. This affects the effectiveness of the teacher payroll system in schools in Sierra Leone for the public financial management system; some policies are standard whilst others still need improvement. However, the implementation of these policies remained questionable. For instance, there is budgetary control system which is highly centralized and hence not trickling down to school management. Also, accountability of school fund management at school level remains a challenge.

Government audits are normally conducted by Audit Service Sierra Leone (ASSL) and not annually as in case professional audit institutions in the country although, ASSL staff have the requisite educational qualification to conduct the audit but, are under staff and therefore not able to conduct audit on government institutions annually. They select institutions for audit based on concentration of funds and risk of management hence schools individually are excluded. The internal auditors in various ministries and government parastatals, which is a new phenomenon, are not fully decentralized.

Government recently established Teacher Service Commission (TSC) in the ministry of education to handle teacher management in the country is yet to fully functional. It is expected that all management information system related to teachers in the country should be handled by this commission. This ranges from recruitment of teachers to their termination or retirement from service. For now, despite all verifications and re-assessment of teachers in the country, we are yet to boast of a comprehensive and accurate data for all teachers in Sierra Leone. Since we have no accurate data of teachers in the country and the unrelenting struggle to weed out “ghost teachers” from teacher payroll, therefore teacher payroll management system lacks the merit of credibility. Teacher payroll system like any other ministry is highly centralized in the finance ministry in Freetown. The processing and payment are done in the ministry of finance.

Resources Needed for Effective Teacher Payroll in Schools in Sierra Leone

The research also revealed that government is unable to finance teacher payroll in schools in Sierra Leone except with the assistance from donor communities. There is tripartite funding of teacher payroll in schools as follows. The government which funds most of schools, the donor communities that fund through government and the local communities which fund the community teachers that accounts for substantial number of schools in the rural areas in the country. It also came out clearly that ministry of education could not be regarded as underfunded but rather funding is not well coordinated. Development agencies' activities in the education sector are not well coordinated by the ministry of education (Victoria TURRENT, 2012).

Teacher Performance in Schools in Sierra Leone

The study revealed that teachers' effectiveness in schools do not lie on payroll only and that there are four motivating factors for the effectiveness of teachers namely: self-motivation, student motivation, school motivation and government policies on education. This is in line with the findings of Sammons, and GU (2008).

The study revealed that the education policy in Sierra Leone is not discriminatory not all teachers are aware of their code of ethics and that conditions of service for teachers are appalling. The result also revealed that quite substantial number of teachers and untrained are just in the classroom because they have no other option. Notwithstanding, the so called untrained teachers are more effective and thus perform better than the trained one. Also, students' attitude to learning affects the effectiveness of teachers, so also the external social influences in school. These findings are in line with the findings of Glendinning, (1998); Davies, (2007) and Deakin, (1998). The non-responsiveness of some respondents that we sent out our questionnaire to them whether deliberately or not, affected the data collected. However, its level of significance did not in any way impact the overall result of the study. Also, the sample size of the study, six schools in Kenema district representing the schools in Sierra Leone might have affected the data collection. However, it impacted less on the result because the centralization in school management and that over eighty percent (80%) of schools are public owned or supported schools.

Conclusion

Generally, this research examined the effectiveness of teacher payroll system in Sierra Leone and its link to teacher performance in schools in Sierra Leone. The findings revealed that the teacher payroll system is not effective is no effective. The banking system in the country to a large extent not effective as commercial banks are not everywhere and even the mobile money system is not functional everywhere too. There is also ineffective financial management system in the public sector with the ministry of education not an exception.

The budgetary control system is centralized and accountability for the school fund is not done. The management of school data is not effective at all as till date the ministry is yet to have an accurate and comprehensive data of all teachers in the country. The report also revealed that government is unable to fund schools in the country. There is still a very good number of teachers in community schools that are not on the public payroll. These teachers are being paid by the communities they live in. The study further revealed that teachers' effectiveness in schools have minimum relationship with the payroll. There are other factors that motivate teachers' effectiveness in schools via self-motivation, student motivation, school motivation and government policies on education. Payroll motivation could be a sub-set of the government education policies.

Recommendation and Suggestions for Further Research

Having known the significance of having an effective payroll system in schools in Sierra Leone, the ministry of education and all education stakeholders must ensure the right things are done to have effective payroll system functional in schools in Sierra Leone. There is need to have an accurate, comprehensive and consolidated data on all teachers in Sierra Leone. This data need to be kept in both hard and soft copies at district, regional as well as centrally in Freetown at the Teacher Service Commission. The Commission should be made functional with offices decentralized at district and regional levels. The commission should use the data it has now and improve on it over the period and there is no need for the numerous verification which may not be cost effective in the system of the use of effective banking system and mobile money for payment of all teachers in Sierra Leone may be a way of checking on the excess baggage in the teacher payroll. The ministry of education may request the banks and mobile companies for their full collaboration in this and anyone found guilty of cheating afterwards should be charged to court and have the bank(s) or mobile company(s) involved investigated too. Payroll management for teachers should be decentralized using the impress float system from the ministry of finance to schools. Schools should initiate their payroll through the Teachers Service Commission (TSC) to the finance ministry every month. The cash is then released via impress system and after payment the impress float is then retired. The results from the study point out many opportunities for further research in other sectors of the public sector. Future researchers should attempt to focus on other sectors such as agriculture and health to mention but few to find out whether the effectiveness of their payroll system takes the same trend as that in schools. This research considered effectiveness of teacher payroll system in schools in Sierra Leone, yet further research could be done other sectors of education such as teacher development, curriculum improvement et al.

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