

UNIVERSITY OF CAPE COAST

MANAGEMENT OF INSTRUCTIONAL TIME IN THE PUBLIC JUNIOR  
SECONDARY SCHOOLS IN THE CAPE COAST MUNICIPALITY

BY

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Educational Administration

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## DECLARATION

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*I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this University or elsewhere.*

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### Supervisor's Declaration

*I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines on supervision of thesis by the University of Cape Coast*

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## ABSTRACT

With the reduction in the number of years spent at the basic school level from the previous ten years to nine years it has often been argued that the short fall of one academic year represents a very significant loss of instructional time. The perceived loss and how to offset this is the focus of the study. The study was based on research questions on lesson planning and its usage, supervision in schools as well as interferences and interruptions during instructional time.

A review of the relevant literature was done to provide a point of departure for the study. The study was conducted in the 44 Junior Secondary Schools within the Cape Coast Municipality. The respondents were the 44 headteachers and 174 teachers. By means of interviews, questionnaire and on-the-spot observations, data were collected, tabulated and processed for analysis.

The findings were ineffective external supervision on instructional time use, interferences and interruptions of activities held during instructional time, the preparation of teaching notes and the time being wasted on the changing over from one lesson to another. The analysis leads to the conclusion that in-service training on lesson planning especially with regard to breaking down the lesson into time-referenced, smaller manageable units from the introduction to the conclusion and evaluation is needed. The study also argues for another look at the existing official timetable to determine the various ways through which instructional time is lost, albeit inadvertently. The need for regular external monitoring of instructional time use in schools by the educational authorities is also recommended. There is also the need for further research into instructional time use at the JSS level in Ghana with a view to eliminating or at least minimizing waste in instructional time use at this level.

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## DEDICATION

This work is dedicated to God for seeing me through to this day. To my children Mazame, Uncle, Pappa. To the memory of my late parents, Mr. and Mrs Pokoo-Akins, Auntie Mrs. Peggy Amankmah. Brother John and Nephew Nab Prah.

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## CHAPTER ONE

### INTRODUCTION

#### Background

Teaching is an activity which transmits knowledge and skills to the students within the framework of a designed curriculum. The pre-planned curriculum specifies what a teacher should do at any given period of time throughout the day, the week, the term and the academic year. The activities are complex. The complexity of the activity lies in the fact that the teacher is expected to take vital pre-instructional decisions on what to teach, when to teach it and how to assess what is taught at any given instructional session (Good, 1979; Gage and Berliner, 1984; Good and Brophy, 1986). Teaching takes time. And in school, as elsewhere, there is never enough of it. Like any executive, responsible for the efforts of others, one will find that managing time for oneself as well as pupils is one of the biggest challenges.

Formal education is seen as the process that can provide the skills needed for the economic and social development of a nation. Lockheed and Verspoor (1991) see education as the main building block for social and economic development. The recognition of this fact explains the heavy investment the government, parents and organizations make on education by providing instructional inputs. Basic education is its foundation and basic schoolteachers play the central role in knowledge delivery. The effective teacher is the one who

strives daily to meet the needs of his students and remain responsible for ensuring students learning, for keeping disciplinary problems at a minimum and for maintaining a congenial atmosphere for learning to take place. In the school, the headteacher is the manager who gets things done through people in order to achieve the school's goal. It is the headteacher's responsibility to ensure that instructional time is put to good use. What happens during school session is very important. The `greatest task the headteacher has is to ensure that both teachers and pupils are always in school to be engaged in teaching-learning activities.

Highlighting on the determinantes of instructional time utilization,

Lockheed and verspoor (1991) observed that:

The annual number of hours available for children to study given subjects in school is determined by three factors: the hours in the official school year; the proportion of these hours assigned to the subjects; and the amount of time lost because of school closing, teacher absence, student absence and miscellaneous interruptions (p.58).

Junior Secondary Education which is basic in Ghana, began in the mid 1970's on experimental basis in some pilot schools all over the country as part of the Educational Reform. Full implementation of JSS in Ghana began in 1987. This system of education is intended to develop in pupils' vocational and technical skills as well as intellectual ability. One of the basis for implementing the Educational Reform in 1987 was to cut down the number of school going



years from 17 years (six year primary school, four year middle school, five year secondary and two years sixth form) to 12 years (six year primary school, three year junior secondary and three year senior secondary school). The five years lost has been the argument of many headteachers and masters that the years for education are not sufficient.

Instructional time in schools must therefore be managed well to make up for the loss. Time must be used effectively by the headteachers, teachers as well as the pupils. When instructional time is efficiently used, the time lost would be re-gained. Honzay (1986), summarising his research on the relationship between time allocations and achievement, includes that lengthening the school day or year is not likely to bring about achievement changes without improvements in classroom instruction and management. The duration of the course is three years after which the Basic Education Certificate Examination (BECE) is taken.

Instructional time for the Junior Secondary School (JSS) has been laid down. The regular session begins at 7.30 am and ends at 2.00 pm. A day's work covers nine periods of 35 minutes each. In between the nine periods are assembly, registration and two break times. The instructional time for the morning shift starts at 7.15 am and ends at 12.40 pm having nine periods of 30 minutes each, while the afternoon shift begins at 12.30 pm and ends at 5.00 pm. It covers eight periods of 30 minutes each. There is only one break time for the shift system.

According to the Ghana Education Service (GES), a JSS with only one stream, that is a school with only three classes should have five teachers including

the headteacher who takes a full teaching load in addition to his/her administrative duties. A double stream JSS with six classes should have ten teachers and the headteacher who is expected to teach a maximum of five periods a week in addition to his/her administrative duties.

Each subject teacher is to teach a minimum of 25 periods per week and a maximum of 27 periods. The school day lasts for about five and a half hours, totalling twenty-eight hours (28 hours) a week. Teachers have an average of four free periods a day which are not used for teaching and learning but may be used for other related duties like marking, recording, preparing lesson notes etc.

Quite recently an attempt has been made to extend the instructional time for the JSS without increasing the number of school years. For instance, the academic calendar for 2002/03, as issued by the GES, (Appendix A) has 42 weeks for the primary school whilst JSS has 45 weeks. In addition, the vacation period for the JSS has also been considerably reduced. This no doubt, is an open acknowledgement of the need to stretch the instructional time as far as it can go so that both teaching and learning target within the three year period of JSS education can be achieved.

Management of time by headteachers and teachers in school as in many other enterprises involves using every support to the full, so as to save time for all the tasks which one has to accomplish in order to bring about maximum results. Time management is the string running through almost all aspects of teaching: organizing the day, organizing the classroom, recording pupils assessment or keeping time-consuming behaviour problems to a minimum.

Tamakloe, et al. (1996) observed that every aspect of instructional programme of a school depends on the effective management of pupils in the classroom. There is therefore the need for co-operation between all members of the class for successful and effective teaching and learning to take place.

Time as a resource is very scarce, irreversible, impossible to store or stretch, once it has passed. It is important to manage time if we want to achieve our objectives. It is often said that time is money. This implies that time can be valued for money just like any other commodity. According to Hindle (1998), "time is costly, it is a sobering exercise to calculate exactly how much one's time costs and then realize how much of it is not being spent effectively." (p.8). People who have goals and are serious about their goals take great care to use their time well. They consider time a precious resource to be allocated to appropriate ends and only after careful consideration.

An important aspect of formal education is that activities are structured. There is fixed time for each subject and fixed time for co-curricula activities. It is therefore possible to pre-plan the work for a day, for a term and for a whole year. This means that the underutilization or mismanagement of instructional time will result in a limited coverage of the designed curricula, which in turn, will have tremendous negative impact on pupils' achievement (Koomson, Akyeampong, and Fobih, 1999).

Instructional time utilization can be effective only if all the human and material resources are well managed. Classroom discipline is one of the vital components of class management and it may be measured by the extent to which

the pupils are willing to apply themselves to the task assigned for them by their teachers.

As part of the Educational Reforms Programme, revised syllabuses have been issued. It is the headteacher's responsibility to ensure that current syllabuses are used in the schools by their teachers and that they should be used in the preparation of schemes of work and teachers' lesson notes. The headteacher has to check during her visit to the classroom to see if lesson plan is being followed.

The realization that instructional time management is an essential element in attaining desirable learning outcomes of pupils has led to considerable pressure being exerted on teachers and their heads. Random survey conducted by the Director of Basic Education and World Bank Monitoring Team revealed some lapses in teachers' working habits. It is evident that the use of school time was well below the acceptable standard that could promote high academic achievement in pupils in basic education schools in Ghana. As a result of their findings, several measures were taken to improve the conditions. One of the measures was to instruct that all changes and modifications in the timetable be made by the headteacher in consultation with the community and the District Director for approval (a circular Ref. No. EP.32/V11/38 dated July 26, 1993 and captioned "Basic Education Schools' working Hours and Time tables"). The headteacher, in planning the timetable should be flexible. Time lost should be paid for by closing later than the normal time. The circular was followed by a subsequent circular, Ref. No. EP/32/VIII/45 dated September 16, 1993, and captioned, "Punctuality and Attendance of Teachers and Pupils in Basic Schools.

It spelt out measures for checking teachers' and pupils' punctuality and attendance at schools".

The Director General of Ghana Education Service, in trying to minimize the loss of pupils' learning time, had issued a special circular to all District Directors on the matter. In his circular letter, he stressed that all meetings of headteachers and teachers with District Education Officers or Circuit Supervisors should be reduced to a minimum and should take place outside official school hours. That preparation for and holding of sporting and other events should take place outside official school hours and that headteachers and teachers should visit the district or regional offices outside official school hours. (Headteachers' Handbook, 1994). Instructional time must be used as specified on the timetable and not on any other activities so that school learning objectives could be achieved. The District Director of Education for Cape Coast organized a two day course on Staff Development and Performance Appraisal 2001 for all headteachers in the Municipality to check punctuality and improve upon their classroom performance to enhance teaching and learning.

### **Statement of the Problem**

Despite all the measures introduced by the Ministry of Education and Ghana Education Service, through circulars and seminars, to improve upon management of instructional time, mismanagement of instruction time in schools still exists. There are disturbing reports in the media of unprofessional practices by headteachers and teachers in both urban and rural areas with regard to management of instructional time, which leads to poor performance by pupils in

the school. For example, the *Daily Graphic* of January 25, 1995 carried the headlines. "Check Punctuality Among Teachers" and drew the attention of the public to lateness among teachers. Another report also appeared in the *Ghanaian Times* of November 10, 1994 captioned "Teachers Asked to Eschew Negative Attitude to Work". In the report, the AME Zion Education Unit Manager of schools in the Central Region at a one-day seminar for Heads of Basic Schools, advised teachers to desist from such negative practices as absenteeism, lateness, drunkenness and other undesirable habits.

There are many situations leading to loss of instructional time. These may include:

- Rainy and stormy days;
- Teachers, pupils and headteachers reporting late to school due to distances between home and school;
- Absenteeism of teachers due to sickness and maternity leave;
- Lateness to school on the pretext of collecting salaries from banks;
- Rehearsing for march past and other route marches;
- Unofficial closing and delay in opening of schools;
- Selling on school premises during school hours;
- Loitering and chatting during school hours;
- Changing over from one lesson to the other, especially when movement of pupils is involved.

Those problems arise apparently because of lack of effective supervision on the part of the headteacher and/or lack of support for and co-operation with the headteacher.

The problem of the study, therefore, is to examine the issue of instructional time management primarily at the public JSS level, and consider how the structure of instructional time promote or reduce its effective distribution as an organizational resource and finally, the study explores how teachers use instructional design and time at the classroom level.

#### **Purpose of Study**

The research work is intended to determine how instructional hours are managed in the public JSS in Cape Coast and to find out some of the factors leading to mismanagement of instructional time in the schools.

#### **Objectives of Study**

The objectives of the study are to determine whether or not:

1. Instructional time is managed properly in JSS in Cape Coast.
2. Headteachers are effective in managing instructional time in their schools
3. Teachers support and co-operate with the headteachers in the management of instructional time in the JSS in Cape Coast.
4. Teachers follow the school timetable as drawn by the headteacher.
5. Instructions from GES on time management in JSS are observed by the headteachers and teachers.

## **Research Questions**

In view of the importance of efficient time management in the process of education the study specifically poses the following questions:

1. What is the total/average time spent on actual instruction per day?
2. How does the lesson plan/instructional design feature in the teacher's work?
3. How is teacher absenteeism managed?
4. How do co-curricular activities affect the timetable?
5. What effect does supervision have on instructional time?

## **Significance of Study**

The study is aimed at bringing to light the areas where time is mismanaged in the teaching and learning process and how measures can be taken to avoid time wasting thereby helping to improve the performance of pupils in their academic work. The study, it is hoped, will provide a guide for scheduling teachers' work in the classroom as well as out of the classroom. In addition, it will provide an ideal framework for developing guide-lines for improving the quality of teaching and learning in the JSS.

Finally, suggestions and recommendations made will aid headteachers and teachers in Cape Coast and other municipalities in planning and implementing their teaching timetable and other activities.

## **Delimitations**

The extensive nature of the whole area would not permit me to conduct the survey in the entire region. The study therefore has been confined to only public JSS within the Cape Coast Municipality.



### **Limitation**

Teachers' time and movement book has been used in this research to determine the reporting, departure time as well as movements of teachers. The time recorded by teachers may be incorrect and deceptive. Results of the research based on these times recorded would therefore not be reflective of the actual situation.

Secondly, headteachers and their teachers could change their working habits during the period of the observation by the researcher. These observations could therefore be deceptive and the result of the research consequently unreliable.

### **Definition of Terms**

For the purpose of this study, the following terms will be defined as follows:

- Instructional Time:** time spent on instruction from the time of resuming the first lesson in the morning to the closing time of the last lesson on the time table.
- Time Table:** the prescribed time allocation for teaching specific school subjects in the curricula. It also includes the break times and registration.
- Urban:** located in or around the Cape Coast Municipality.
- Rural:** located outside Cape Coast Municipality.

## Organisation of Study

The study is organised into five chapters. Chapter one deals with the background, statement of the problem, purpose, objectives, and significance of the study. Research questions have been formulated to guide the study. Limitations and delimitations of the study have been described and the chapter also deals with definition of terms.

Chapter two examines the related literature under the seven sub-topics:

- (i) Views on instructional time management
- (ii) Ghana JSS working hours and timetables
- (iii) Co-curricular activities in Ghana JSS
- (iii) Lesson planning
- (v) Managing instructional time in the classroom
- (vi) Supervision
- (vii) Time management and pupils' achievement

The third chapter contains the description of the methodology. It describes the population, the sample, the research design and the method of sample selection and discusses the design of instruments, pre-testing of the instruments, data collection methods and data analysis plan. The data is analysed and discussed in chapter four while chapter five comprises a summary of the major findings, conclusions drawn from the study and recommendations for further research.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

#### INTRODUCTION

The issue of instructional time has emerged in recent years as a critical factor in effective schooling. Theories involving academic rigour, for example, argue that schools are effective when they offer demanding curricula and employ teachers whose educational expectations for their students are high (Phillips, as cited in Evans- Andris 2000). Models have found out that the amount of time spent on instruction, and the amount of homework assigned to students hold a strong predictive capacity in determining school performance (Phillips, Young, et al as cited in Evans- Andris 2000).

The ways in which schools arrange and use time as an instructional dimension is a key educational resource that can provide a foundation to support efforts to improve the quality of teaching and learning. Nickell, et al (1975) pointed out that the term time management is a misnomer. According to them, people in reality, cannot manage time or its production or redistribution. What people can do is to manage its use.

By use of the instructional time, one is referring to appropriate use of the period as indicated on the time table by the teacher in an interactive setting with the pupils on issues relevant to what is being taught or what is learnt according to the teachers' scheme of work and lesson plan for that particular period. This implies that appropriate use of instructional time will not be limited to the mere

physical presence of the teacher in the classroom with the pupils at the appointed time.

Management is the cornerstone of organizational effectiveness. It is the arrangements for carrying out organizational tasks. It is a process of planning, organizing, directing and controlling the work of people using available resources to achieve the stated goals of the organization. Follett, in Stoner (1978), defines management as "the art of getting things done through people" (pg 7.) Barnard (1938) regards management as "the arts of accomplishing concert ends, effect results, produce situations, that would not come about without the deliberate efforts to secure them" (pp.290-291).

Management, according to Drucker (1970) enables the organization to contribute to the growth of the individual and the economy. Time as a resource is precious and, when managed effectively, yields positive results. According to Awusabo-Asare (2001), time is considered to be a major resource. It is an intangible resource whose management has become one of the essential features of human development. Time is an element which can be lost or gained. But once lost, it cannot be recouped, and hence can be classified as a non-renewable resource. In general, the higher the level of consciousness of the individual, the higher the appreciation and the use of time. That is, the use of time can be considered to be one of the indicators of socio-economic development.

Dean (1987) has stated that time is strictly finite and since one cannot increase it, one would have to look critically at its use. This implies that headteachers, teachers and pupils need to be conscious of how they use time. The

efficient use of time during instructional hours will promote effective teaching and learning. The question that has engaged the attention of researchers and policy makers is how the instructional time is managed to achieve set goals.

A review of related literature on this subject will provide a conceptual framework for the study of management of instructional time in the JSS within the Cape Coast Municipality. It will also help find out some of the variables that influence management or mismanagement of instructional time. The review of the related literature will be carried out under the following sub-headings:

- (i) Views on instructional time management
- (ii) Ghana JSS working hours and timetables
- (iii) Co-curricular activities in Ghana JSS
- (iv) Lesson planning
- (v) Managing instructional time in the classroom
- (vi) Supervision
- (vii) Time management and pupils' achievement

Useful information on the topic from documents like books, journals, newspapers, Internet was reviewed.

### **Views on Instructional Time Management**

Different kinds of techniques on how instructional time could be managed effectively have been put forward by some authorities, most of which can be employed by headteachers and teachers alike to improve upon their use of time in school. Craig (1986), agrees that successful management of time in schools, as in other enterprises, involves using every support system to the full. The implication

of this is for the headteacher and the teacher to plan and apportion the time available for all tasks that are to be done. Craig advises that educators need to realize that time management is an essential element on an effective and productive educational system.

Effective time management is one of the skills necessary for success in schools as well as in everyday life and in the work world. Pupils need time to practice, rehearse, review, apply and connect new learning and relate it to their everyday lives. Teachers who effectively manage time give their pupils the best opportunity to learn and to develop personal habits that lead to wise use of time.

The first step in successful time management is to set priorities. This means deciding and listing all the tasks you have to do in order of importance and urgency, and working through them one at a time. To prioritise successfully, the school head needs to develop both a long term plan and a weekly plan.

Management is a process of planning. The head has to make sure that she looks, at the beginning of the year, at the work that is expected of her. Planning keeps pupils, teachers and the headteachers from wasting time. Planning has to do with time management. Failing to plan is planning to fail. The head as well as the teachers have to plan each day, each week, and each term. Planning ahead saves time, worry and energy.

In the school system, the syllabuses and scheme of work are tools for planning. As part of the Educational Reforms, revised syllabuses have been issued. (1998). The headteachers' responsibility is to acquire the most current

syllabuses and encourage their teachers to use them to prepare their schemes of work for the subject(s) they teach (Headteachers' Handbook 1994).

Tamakoloe, et al (1996) stated that good teaching like any other human endeavour, demands a thorough preparation. The success of any lesson depends upon the quality of its plan and the expertise with which it is carried out. Successful teachers plan their scheme of work in advance, know how to break down the broad details of the syllabus into smaller, more manageable activities and arrange them in a logical order with the estimated time to be spent on each topic. The topics should be planned to be taught at the most suitable time and in relationship to other relevant topics.

The headteacher will need to consult the syllabus when vetting teachers' schemes of work and lesson notes in order to check whether the teachers have followed the syllabus with a variety of activities to keep the pupils engaged in learning. On planning and organising for instruction, Spodek (1986), said that planning begins before the children enter school. Teachers gather supplies and equipment well in advance of their use. The headteachers, as much as possible should help their teachers obtain information for their teaching and the preparation of teaching aids. It cannot be denied that preparatory activities, such as getting out materials, indirectly supports instruction but often take up too much time. Thus it becomes important when managing instructional time to distinguish between allocated time (the time scheduled for instructional activities) and the actual time (the amount of time students are actively engaged in an activity). This implies that the headteacher should get all materials for learning in the school

whilst teachers get ready materials that will be needed for a lesson before the lesson begins.

Hardling (1981) points out that it will be useful for teachers and headteachers to ask themselves how effectively they are functioning within school contact hours. This will form the basis for producing their own time management and work plan for each work load. Harris and Libo (1960) define workload as all the time and energy directly or indirectly employed by the headteachers and teachers to perform their duties. They see workload as embracing time spent on actual teaching as well as time spent on teaching related duties.

#### **Ghana JSS Working Hours and Timetables**

Nickel, et al (1975) have noted that time is an irreplaceable resource. Every second, minute or hour that passes, goes for good. Hindle (1998) noted that individuals and institutions are accountable for their use of time, goals and priorities are clearly defined and financial losses are incurred and missed deadlines. Bliss (1976) adds that if people are goal oriented, their pace is often brisk and assertive and if people are procedure orient, their pace may be more leisurely.

Time has been defined as a system of measuring duration. It is divided up into smaller units second, minute, hour, day, week, month and year. These divisions of time can be used to describe the past, the future and the present. The calendar shows day, week, month and year and the clock tells the second, the minute and the hour. The school has its academic calendar, which begins from September and ends in August. According to ILO and UNESCO (1984), the



hours of work teachers are required to function or operate per day and week should be established in consultation with teachers' organizations.

The length for academic year for the JSS is 45 weeks for teaching and learning activities. The calendar year is broken into 1<sup>st</sup> term 14 weeks; 2<sup>nd</sup> term 14 weeks and 3<sup>rd</sup> term 17 weeks (Ministry of Education (MOE) circular dated May 20, 2003) (see Appendix A). A regular school has to offer nine periods of 315 minutes a day, the morning shift has nine periods of 270 minutes and the afternoon shift has eight periods of 240 minutes a day. On the surface, this 45 weeks has been stated for the academic year. The academic year of the school comprises of teaching and learning, sports and games and other co-curricular activities. The reality is that not all the instructional time provided within this arrangement is used for actual teaching and learning in the classroom. Sporting activities for example, often tend to eat substantially into periods allotted for classroom teaching and learning. It is often the case that because a school does not have the appropriate facilities for athletics, for example, both pupils and teachers have to move away from school to a field that is appropriate for the sporting activity concerned.

In the JSS, a blank timetable is provided (Appendix B) Headteachers are expected to fill in and adopt the hours to suit their localities. This is done based on suggested general subject timetable format from the GES, which provides suggested allocation of periods to subject per week (GES, 1998). (Appendix C). The headteacher may modify the official timetable with prior approval from the District Director. During rainy seasons when the school may have to open late

because of morning rain and in this case the headteacher should make up for lost time by closing later than normal. Sometimes certain local ceremonies or annual festivals may take place in the morning, it will therefore be necessary to open late and close late in order to solve the problem of mass lateness. The headteacher has to prepare the general timetable with her teachers, considering their needs. From the general timetable, individual subject teachers should copy their own timetables and form teachers should copy and display one in their respective classroom. The timetable has to be placed openly in the headteacher's office where everyone can see and be able to tell what is happening in each of the classes to make sure teachers are working.

Practical subjects like pre-technical, pre-vocational skills or agricultural science should have at least one double period a week. Carron (1997) maintains that poor time table could lead to underutilization of the teacher. Once the timetable has been planned to suit the local situation and the school's needs, teachers and pupils have to observe the time for coming to schools, for break periods and the 35 minute lessons. In the schools, bells or drums are used to signal the beginning or ending of a particular period or breaks.

### **Co-curricular Activities in Ghana JSS**

Co-curricular activities constitute a significant part of the school curriculum. These activities usually take place outside the normal class contact hours. They are essential for the total development of the children. The Headteachers' Handbook (1994) groups co-curricular activities into four main areas:

- i. Activities of clubs and societies like Debating Society, School Choir, Red Cross Society, Green Earth and Drama Clubs'
- ii. Special ceremonies such as Independence Anniversary march pasts, Speech or Open Days and Singing competitions
- iii. Field trips and excursions to places of educational interest
- iv. Sports and games competitions/festivals (p.56)

Teachers are assigned to be in charge of each of the co-curricular activities planned for the school. These extra responsibilities of the teachers are not specified on the schools instructional timetable.

In order to ensure that these co-curricular activities do not disturb the instructional time of the schools, a special circular was sent to all District Directors of Education on the matter (Ref. GES circular Reference Number GES/DG/011/11/22 dated April 22, 1993) stating that preparing and holding of sporting and other co-curricular events should take place outside official school hours unless otherwise authorized by the Ministry of Education. The headteacher must plan the programmes of the activities for the term with his teachers and a timetable for such activities should be prepared and displayed on the notice board. A co-curricular timetable should indicate the activities, the time schedule and the teacher(s) in charge. The headteacher's daily routine does not end until the co-curricular activities planned for a particular day have come to an end. Normally, co-curricular activities should be planned and organized from 2.00 pm at the close of the school's instructional period. However, in schools constrained to run a shift system, such co-curricular activities should be organized in such a way that the

morning shift's co-curricular period can run from 12.15pm to 1.15 pm while the afternoon shift's period runs from 4.45 to 5.45 pm, after the regular instructional hours.

Where only a few pupils are selected for a co-curricular activity, normal class work should go on. Selected players or athletes should be given the work they missed upon their return. Pupils camped for training, need to attend classes in the schools where they are kept and their studies should be closely supervised by the sports organizers. (Headteachers' Handbook, 1994). The school's timetable should be made more flexible for necessary changes to be made so as not to lose valuable instructional time. For example, when a school is playing host to a game, all the pupils should be allowed to watch the game. The instructional time used for such co-curricular activity should be made up for by opening the school earlier or closing later to make up for the loss.

Trips, excursions, open-days and special occasions, for example, should take place as usual, outside instructional hours. The headteacher can plan to have these co-curricular activities during week-ends or during vacation. The preparation of the scheme of work and lesson plans can incorporate some co-curricular activities. For example, activities on health could be planned for and taught or dramatized during science lessons.

A varied programme of after-school activities will enrich the lives of pupils, it will also provide the all-round development pupils' growing bodies need. When these activities are well organised and well supervised by the heateacher, the management of instructional time in our JSS will at worst, suffer

only minimal loss, a situation which augurs well for the attainment of the scheme for work's stated objectives.

### **Lesson Planning**

Planning is one of the most important skills a teacher should possess. A teacher who commits himself to a plan makes better use of the instructional time and is more likely to teach better. Planning is a complex and pivotal element of instruction because it incorporates so many skills which include:

- (1) Writing clear and concise instructional objectives (Instructional Objectives);
- (2) Choosing teaching approaches to present content (Approaches to Teaching);
- (3) Knowing when and how to question pupils (Classroom Teaching Techniques);
- (4) Managing the classroom (Classroom Management); and
- (5) Evaluating the effectiveness of the instruction (Pupil Assessment and Self-Evaluation).

Careful planning of a lesson is so vital that making it a habit to plan well is always worth the effort. Many teachers find that as their planning skills improve, their hours in the classroom become more comfortable and rewarding, and their interactions with pupils improve. (Arend, 1988). Tamakloe, et al (1996) has established that the success of any lesson depends upon the quality of its plan, and that, good teaching demands thorough preparation.

The GES has provided syllabuses for the use of teacher in planning the scheme of work for the term out of which both the weekly forecast and daily lesson notes are prepared. Measurement of time for the schools has been classified. The headteacher is required to display the academic calendar for the year, stating the duration for the term's work on the notice board to aid teachers in their preparation and their planning for the term's work. Planning for the academic year operates on three levels – long, medium and short terms. The long-term plan is the scheme of work for the term. In it, a broad goal is stated for the term as a whole. The number of days/hours available for the term is specified, a brief description of activities for each day and week is given and any equipment or materials which need to be procured or made available ahead of time is also indicated.

The medium-range plan for the school is provided by the weekly forecast, upon which the teacher depends for the daily or short-term planning. The use of a daily planner is a valuable tool for time management and organisation. The headteacher, teachers and pupils should all operate according to a well laid out plan which is time-referenced. This constant and regular management of work according to time, is vital if the stated long-term goals in the scheme of work are to be achieved. When planning the daily lesson, a brief review of the previous lesson, an introduction to new lesson, a series of activities to allow pupils to learn and practice the lesson content, and some form of closure or summing up of the lesson should be considered as the main steps.

Time budgeting becomes important for the achievement of the school's stated objectives. Time should be prioritised and organised in a clear fashion. In the JSS, the normal lesson period is designed to run for either 35 minutes or 70 minutes, depending on whether it is a single or a double period. One factor related to the success of a lesson is time. It is important to learn how to gauge the approximate amount of time an activity requires. While a fast, lively pace is usually preferred, rushing through an activity can be traumatic for both the teacher and the pupil. Running out of materials to teach before the class has ended can be equally unsettling (Arend, 1988). Teachers should list each sub-topic and write a time estimate next to it on the lesson plan. Writing down the sub-steps also helps the teacher make sure he/she has planned for all the materials needed to teach a lesson, so that valuable class time is not wasted on organising materials or getting equipment within the lesson period.

Ten steps to develop a quality lesson plan were listed on the Webmaster site of the Internet (Lesson Plan Page.Com) and these were considered germane to the present discussion. These are:

- i. Considering what you want to teach.
- ii. Developing clear and specific objectives.
- iii. Finding out exactly the materials that would be used; this should be stated in the lesson plan.
- iv. Writing an anticipatory set, which would be a way to lead into the lesson plan and develop the students' interest in learning what is about to be taught.

- v. Writing the step-by-step procedures that will be performed to reach the objectives.
- vi. Providing time for independent practice.
- vii. Having a closure for the lesson plan using the anticipatory set
- viii. Writing the assessment/evaluation.
- ix. Making adaptations for student with learning disabilities.
- x. Including a "connection" action, which shows how the lesson plan could be integrated with other subjects.

These and other views stated in connection with lesson planning in this section, provide a point of departure for the study of instructional time management.

### **Managing Instructional Time in the Classroom**

Teaching involves managing instructional time in the classroom. It covers the art of teaching specific subject(s) laid down on the class timetable using a wide range of teaching strategies and resources. To ensure that teachers make good use of pupils' learning time, the headteacher should know how pupils and their teacher manage instructional time in the classroom. Frequent visits to the classrooms are to be made by the head. The Headteachers' Handbook (1994) has this to say by way of advice to headteachers in general:

One of your duties as a school administrator is to make sure that teaching and learning in your school is carried out as effectively as possible. To be able to do this efficiently, you have to follow closely what your teachers and pupils do in the classroom. You should check that your teachers



prepare sufficiently for their lessons teach properly and manage their classes well. This means that as a headteacher you have to find those aspects of your teachers' work which need improvement. After you have found out in which areas your staff need help to make them better teachers, it is your duty to provide on-the-job training for them (p.54).

Effective use of school time begins with efficient classroom organization and management and vice versa. Much of the essentials of classroom life involve time management in some way: pruning down paper work; planning; establishing routines that eliminate wasted time and confusion; using learning centers, independent assignments, and seat work to give you time to work with small groups; and classroom environments that allow students and activities to move smoothly from one activity to the next. (Shalaway, 1998). Modern trends in the administration of a school lay emphasis on the planning of the procedure that would enable the teacher present her lesson efficiently. This requires the availability of a whole range of resources, both human and material within the school. The headteacher should therefore assist the teachers in these areas to enable them plan and prepare their lessons efficiently.

Kounin (1970) defined effective managers as those teachers whose classrooms were orderly, had a minimum of student misbehaviour, and had high levels of time-on task and effective managers as those whose classrooms lacked these qualities. He found that effective and ineffective managers did not differ

greatly in their methods for dealing with disruption. Instead, effective managers were found to be much more skilled at preventing disruptions from occurring in the first place. Kounin went on to identify the specific behaviours these effective managers engaged in to keep their students focused on learning and to reduce the likelihood of classroom disruption, such as smoothness and momentum in lessons-conducting smooth and brisk pacing and providing continuous activity signals or cues (such as standing near inattentive students or directing questions to potentially disruptive students) and Over lapping that is attending to different events simultaneously without being totally diverted by a disruption or other activity.

Good classroom managers know how to delegate. Aides, volunteers and students can handle many classroom tasks and save the teacher enormous amount of time (Shalaway, 1998). Charles (1983) states that routine tasks such as distributing materials should be delegated to pupil helpers. This will allow the teacher to attend to matters related to instruction and will reduce the stress teachers feel about time. As noted by Sefenu (2001), "delegation of duties can be an effective time-saver if it is done properly. After all one cannot do it all alone" (pg 77).

Class presentation can be improved by considering timing and pacing as a means of getting attention and keeping it. Lessons should have continuity and teacher's ability to make smooth transition can conserve instructional time. It is believed that pupils respond best when teachers deliver information and instruction briskly. According to Lockheed, et al (1991) effective teaching is

determined by the individual teacher's knowledge of the subject matter and mastery of pedagogical skills. Having in-depth knowledge of the subject matter and teaching skills will make lesson presentation very smooth. The headteacher has to ensure that her teachers follow a systematic plan in the presentation of their lesson. The teacher's lesson plan should be followed and the headteacher has to check during her visit to the class for a proper introduction, logically ordered presentation, appropriate pupil activities, well thought out questions, well prepared teaching-learning aids and assessment to check the level of learning achieved (Headteachers' Handbook, 1994).

Opportunity for student learning can be increased by ensuring that teachers are employing effective classroom-management strategies since undue time spent attending behavioural disruptions or other disciplinary issues reduces instructional time. Consistently providing curriculum and instruction appropriate for the age and ability of students also contributes to student learning. Finally, student engagement and learning will tend to increase if teachers foster student motivation through a repertoire of interesting, innovative thought-provoking instructional endeavors rather than offering activities as repetitive seat work (WestEd, 2001).

It has been confirmed by separate studies at the Far West Laboratory for Educational Research and Development, and the former Institute for Research on Teaching at Michigan State University, that moving from one classroom to another, interruptions, and other periods of non-instructional time account for at least 27 percent of an elementary school day. In many classrooms, that figure

climbs beyond 40 percent. (Shalaway 1998). Too much teaching time is lost when pupils stare out of the window or are otherwise disengaged during instruction, when pupils and teachers over spend their break times and moving from one classroom to another and other interruptions like the teacher being called out of class to attend to other responsibilities.

Cotton (1990) in her research findings on Using Time Productively revealed a close relationship between the amount of time students engaged in appropriate learning activities and the levels of academic achievement. It revealed that a great deal of potential learning time is lost in schools and classrooms. Excessive absences and tardies, assemblies and programmes which are too lengthy or hold too frequently account for some of this loss.

Within the classrooms, more teaching time is dissipated due to slow start-up of instruction at the beginning of the school day, lengthy transitions between classroom activities, interruptions, off-task behaviour, disciplinary matters and dead time, that is periods of time allocated for instruction but during which no learning activities have been assigned to students.

Even when students are technically 'on task', research has shown that extended periods of seatwork and other non interactive learning activities are far less effective than interaction with teachers aides or other students in promoting learning gains. According to Cotton, productive time use is such a critical component of effective schooling. Researchers have found that in high-achieving CLASSROOMS, "Classroom Learning Time is used Efficiently" (P,8). They noted that teachers' planning; classroom management, grouping strategies,

instructional pacing, student monitoring, activity transitions, seatwork assignments and disciplinary functions are carried out in such a way as to maximize the amount and quality of instructional time.

Educational researchers have likewise found that in high-achieving SCHOOLS, "School Time is used for Learning"(p, 16), meaning that school wide policy and practice are focused on maximizing instructional time through providing appropriate staff development activities, minimizing administrative intrusions, emphasizing timeliness and generally streamlining non instructional activities.

Another important issue in teaching to be considered is class size. The class size should be such as to permit the teacher give the pupils individual attention. It is expected that the teacher would make provision for group work, individual instruction and for other such tasks as remedial training. In a joint publication, the Ministry of Education and UNESCO (1988) point out that too large a class size has negative impart on learning. This is because the teacher has more work than she can effectively handle. The normal class size, according to the Ghana Education Service is a maximum of 45 in the JSS but most schools exceed this number.

The District Director of Cape Coast Municipality has recently advised headteachers against large class sizes. He said that overcrowding the classroom is counter productive and undermines discipline which affects instructional time. However, the use of group work is very useful. Pupils have to examine or perform experiments, solve problems together, share items together and use

different sets of materials together. Group work can help pupils learn better in some lessons. Instructional time may be well used by doing group activities, giving clear instructions to avoid confusion and disorder and ensuring that every member in the group takes part in the activity. The Headteachers' Handbook (1994) suggests that to effectively use learning time, it is helpful to ask pupils questions, call upon pupils randomly to perform some activities and move around the class to assist individuals.

All teacher managerial activities require time. When that time is taken from instruction, students suffer, for example in a multigrade class, when individual students need help while the teacher is engaged in instruction with another student or a small group, without a procedure for managing this incidental help, instructional time can be seriously disrupted (Emmer, 1987). Careful attention to planning and carrying out plans will make important differences in pupil learning.

Sometimes a great deal of instructional time is lost because teachers use class time to mark pupils' exercises. The headteachers have to advise their teachers to use their free time wisely and profitably. It is important for the headteacher to inspect the pupils exercise books from time to time to check on their progress of work to find out the relevance and appropriateness of the work done.

### **Supervision**

Effective supervision is one of the major tools which facilitates the proper use of instructional time in schools. It has been established that pupils whose

teachers are adequately supervised while teaching perform far better than pupils whose teachers are not adequately and frequently supervised. Teachers tend to misuse the instructional time especially when there is no one around to see to what is being done in the classroom. Duke (1987) reported that more than one in three school heads indicate that lack of time for classroom observation and conferences with teachers is a major problem. Given the sheer range and number of activities in which school heads are expected to engage, it is essential that priorities are established. Many school heads are unclear about how to spend their time. They often lack a vision of the most desirable ends to guide them in the reallocation of their time. They are also uncertain about which of their responsibilities are most likely to have the greatest impact.

During the past few decades, studies of school effectiveness have shown direct responsibility for the improvement of school performance on instruction to rest in the hands of school heads. The heads of effective schools have been found to be instructional leaders. These headteachers want to be involved in instructional activities and not only in administrative activities, because they believe that the instructional role influences pupil learning. Supervision can influence both the instructional process and pupils' achievement.

Wiles (1967) points out that supervision "consists of all activities leading to the improvement of instruction, activities related to morale, improving human relations, in-service education and curriculum development". (p.5). Supervision is a service aimed at improving the use of instructional time by providing good teaching and learning in the classroom. It must be done in order to test the

effectiveness of the teaching as well as that of the teacher in achieving the objectives of education in schools.

Eye and Netzer (1965) state that "supervision is that phase of school administration which deals primarily with achievement of appropriate instructional expectations" (p.12). Effective supervision is a way of maximising the use of instructional time which could enhance teaching and learning, thereby ensuring better performance. If teachers are provided with effective supervision by the headteacher and other external officers, they can attain high levels of personal and professional achievement. Effective supervision ensures a proper appraisal of the teaching and learning process, bringing about the achievement of stated objectives. Rue and Byars (1986. p.6) are of the view that "supervision is to encourage members of the unit to give of their best in achieving the organisational goals".

Coaching can help teachers improve that instructional effectiveness by providing them with feedbacks on their functioning and stimulating them to become more reflective. Coaching is closely related to the concept of clinical supervision, which has a much longer educational tradition. Clinical supervision is defined by Sergiovanni and Starratt ( 1983) as "an in-class support system designed to deliver, give assistance directly to the teacher to bring about changes in classroom operations and teacher behaviour"( p 299). The term clinical is intended to convey the image of face-to-face contact between supervisors and teachers. Coaching can help improve the instructional performance of relatively



competent teachers but also the instructional performance of teachers functioning at substandard levels.

Modern day supervision should not be considered as mere classroom visits but should be seen as assisting the teacher to improve upon the use of instructional time. Neagley and Evans (1970) see modern school supervision as "positive democratic action aimed at the improvement of the classroom instruction through the continual growth of all concerned – the child, the teacher, the supervisor, the administrator and the parent or other interested persons" (p.2). Today's supervision is a co-operative service designed to aid teachers and to improve upon classroom management which ultimately should lead to effective use of instructional time. Supervision and development entail the provision of instructional support, finding out what teachers are doing in their classrooms, finding out the problems that they encounter during instruction and the provision of feedback.

Two main types of supervision are commonly known in Ghanaian schools, namely, internal and external supervisions. Internal supervision deals with all the activities performed by teachers and headteachers in the school to enhance teaching and learning. Neagley and Evans (1970) view the internal supervisor as the head or principal in the present day public school organisation who is the chief school administrator in the day-to-day administration and supervision of the school. External supervision basically deals with supervision by officers from education offices at the Unit, district, regional and national levels. Both the

external and internal supervisors have the responsibility to supervise the instructional time use in the schools.

Musaazi (1985) mentions three types of supervision – full supervision, where all aspects of organization and instructional work are carefully examined; routine supervision which involves discussion with teachers on specific issues; and casual supervision or check up visits which are usually informal. The supervisor forms an opinion on what he sees. The scope of supervision is very broad, covering all the factors that affect teaching and learning in schools. It is therefore imperative that after the necessary human and material resources have been provided, adequate supervision should take place to ensure that managing the instructional time resource brings about the realisation of the school's objectives. In view of the broadness of the scope of supervision, bodies like the PTA, SMC and other stakeholders in education, are to exert some influence by way of supervision in the schools in their localities. This, it is expected, will improve the use of instructional time thereby enhancing teaching and learning in the schools. It is believed that when members of the community are involved, certain unprofessional attitudes like absenteeism, lateness, idleness among teachers will be minimised.

It can be concluded that effective and frequent supervision from both the external and internal sources is needed in our Ghanaian public JSS. Both supervisions should aim at ensuring the proper use of instructional time especially in the classrooms which will improve teaching and learning in our school. This will go a long way to realising the short and long term goals of the school.

## **Time Management and Pupils Achievement**

According to Arend (1988), time can be seen as a critical resource in teaching, which in combination with other resources produces pupils' learning. The amount of time spent on what pupils are supposed to be doing, has been the focus of considerable educational research, especially in the United State of America and in other parts of the world.

The review of literature on teacher effectiveness indicates that effective classrooms are well managed and feature large amount of quality time; that is, period when pupils are actively engaged with the teacher or material (Edwards, 1994, Blair, 1981). Little engaged time will result in poor management of pupils and activities. It is believed that the more teachers teach, the more pupils learn. Lockheed and Verspoor (1991) made the assertion that when teachers devote more time to instructions, students learn more. In a recent study of nearly 5600 students from 23 middle schools in the South Eastern United States, Phillips (as cited in Evens Andris (2000) found instructional time to be an indicator of academic rigour which, in turn, was positively related to both mathematics achievement and attendance.

The amount of time students are engaged in learning confirmed Walberg (1988 as quoted on Evans Andris 2000) has a powerful and consistent effect on the amount of learning that takes place. Studies have shown that the amount of time available for teaching and learning academic subjects, and how the time is used by teachers and pupils have direct bearing on students' achievement. (Heneman and Loxley, 1983, Lockheed and Komenan, 1989, Rust and Dalin,

1990). Mc Garity and Butts(1984), examines relationships of various teacher behaviours to time-on task and the science achievement to middle school and high school students found out that close monitoring, providing feedback, reteaching, maintaining learner involvement in lessons, using instructional time effectively and managing disruptive behaviour efficiently were positively related to academic achievement.

The overall objective of the Basic School programme in Ghana is to enhance learning achievement and increase the quality education of children. To achieve this depends much on the headteachers and their teachers. The word 'teacher' covers any person who is responsible for the education of pupils. It also applies to a school headteacher, an inspector or supervisor and anyone who assists teachers in their work, through advice or direct action (ILO, 1984). Based on this definition of 'teacher' any assessment of the teacher's performance is often made on the visible activities occurring around and within the school premises. This means that the headteachers and teachers are under critical observation. The success of JSS is dependent on the efficient use of teachers' hours of work. Effective teachers and headteachers organize their time in order to ensure that most of it will be spent on instruction. The academic and professional training of the teacher has a direct and positive bearing on the quality of their performance and consequently on the achievement of pupils.

Lockheed and Komenan (1989) point out that the shorter the official hours of instruction, and the higher the amount of instruction time lost, the lower the level of achievement of pupils in the assigned subjects. Lockheed and Verspoor

(1991) maintain that in-school learning time is especially valuable for student from impoverished families who usually work and spend relatively few of their out of school hours on learning.

According to Dean (1987) a teacher needs to frequently review the way he uses time to foster pupils learning in the basic school. Headteachers and teachers assess the quality by measuring how much time children spend in tasks related to learning as opposed to how much time they spend doing non-instructional tasks necessary in the classroom. Achievement increases when pupils spend more time directly and actively, engaged in appropriate learning activities.

According to Evans-Andris (2000), distribution of time within classroom is important. In his final research report, it was found out that classroom teachers spend up to 20 percent of classroom time on non-instructional classroom management activities. All the literature reviewed suggest that the use of instructional time has bearing on pupils achievement. The number of minutes allocated to a subject on the timetable do affect the level of pupils achievement. Johanna (1979) indicated that all other things being equal, the greater the time spent on instruction, the higher the achievement of pupils.

Koomson et al (1999) ascertain that even though the provision of all the instructional inputs required by teachers for effective classroom teaching is a major pre-requisite for instructional success, the management of instructional time with these inputs is of utmost importance for the attainment of set instructional goals. According to their findings, about 50% of the instructional time on the average in the schools studied in Ghana is mismanaged due to a host of factors

including: late starting of schools; teacher-lateness to class; and teaching only a few subjects on the time table.

The related literature reveals that there is a correlation between effective use of instructional time, and pupils achievement and that headteachers and teachers can employ various techniques to improve upon time management skill so that they can make every moment of the instructional time count towards the achievement of the desired goals and objectives of the school.

This study is therefore intended as a contribution to the research findings on the relationship between effective instructional time management and learning outcome as put forward by Carron (1997); Heyneman and Loxley (1983) Lockheed and Komenan (1989) and Rust and Dalin (1990) as stated in this review and which have found corroboration in the findings of Koomson, Akyeampong and Fobih (1999).

## **CHAPTER THREE**

### **METHODOLOGY**

In this chapter, the population, the sample selection, the research design, the research instruments, the pre-testing of the instruments, the procedure for data collection and data analysis plan, are all described.

#### **Population**

The study was conducted among all the 44 public JSS headteachers and teachers in the Cape Coast Municipality. Statistics collected from the Municipal Education Office for 2001/02 states that the 44 public JSS comprise 30 urban and 14 rural schools. Twenty-four of the headteachers and 151 teachers were females, while 20 headteachers and 186 teachers were males. The target population for the study therefore made up of 44 headteachers and 337 teachers in the public JSS, giving a total of 381. The accessible population was all the 44 headteachers and 174 teachers totaling 218.

#### **Sample**

A total of 230 respondents were selected. All the 44 headteachers were purposively selected, while 98 male teachers and 88 female teachers making a total of 186 teachers were selected using the simple random technique.

the males from the female teachers and depending on the number of males to that of females random selection was used to select three teachers. For example, for a double stream school having three male teachers and seven female teachers, the selection would be two male and four female teachers. That would be a total of six teachers randomly selected for a double stream. The schools were categorized into: urban and rural schools, and 12 out of 44 schools were selected using the stratified random sampling method for the observation. The sample was made up of four rural and eight urban schools.

### **Research Design**

The descriptive sample survey design was used to search for detailed information about the characteristics of headteachers and teachers. The design was also considered to find out the extent to which time management is used at the JSS level. The usefulness of this descriptive survey for this type of research is supported by Gay (1987) who states that the descriptive sample survey is an attempt to collect data from members of the population in order to determine current status of that population.

### **Research Instruments**

Four types of instruments were used to collect data. These were: documents, questionnaire, interview guide and observation. Factual data such as qualification, rank and number of teachers were collected by analyzing documentary data available at the headteachers' offices. The 186 teachers were



given questionnaires to fill, while the headteachers were interviewed, using interview guides.

In addition, the researcher went round to observe on-going activities in the schools using observation format. The research instruments were designed in line with the research questions. The final instruments were put into shape with the assistance of the principal and co supervisors.

### **Questionnaire for Teachers**

The questionnaire for the teachers contained 26 items. (Appendix D) Some were closed-ended and sought information on how teachers manage the school time generally, and how they manage classroom instructional time. Some items also sought information on activities that contributed to time mismanagement. There were also a few open-ended items demanding additional and further explanations to clarify the points made. Items of questionnaire were selected to cover personal data of respondents, lesson note preparation, submission, its usage in the teaching and learning process, the use of teachers' free periods, supervision and monitoring of teachers in the classrooms, co-curricular activities which may interfere the use of instructional time.

A questionnaire was used for teachers because it afforded a very convenient way of eliciting information especially from literate persons. The questionnaire was also designed in such a way as to make the processing of the responses easy to manage..

### **Interview Guide for the Headteachers**

The interview guide of 25 items was parallel to the teachers' questionnaire. (Appendix E) The headteachers were interviewed one-on-one on how lesson notes were vetted, the regularity of their visits as well as external visits to the classrooms, pupils and teachers responses to bell or drum as signals for change over, breaks or closing, and some interference affecting teaching and learning. The interview guide was used for the headteachers because where the questions did not meet the requirement of the researcher, other guiding questions came in as a complement.

### **Observation**

A form was designed (Appendix F) to extract information on all on-going activities in the school with specific attention on:

- a. Number of subjects taught per day
- b. Time first period started and the duration observed
- c. Time taken for a change over lesson
- d. Time taken for break periods
- e. Duration of last period in observed classes

A total sample of 12 schools were drawn from the six circuits in the Cape Coast Municipality. The urban (u) and rural (r) schools were grouped as two different clusters. The ratio of rural (r) to urban (u) schools was 14:30. Based on these numbers, the researcher randomly selected from the stratified list of schools. Stratified Random Sampling as defined by Nwana (1992) is a practice in which

the population is divided into two or more sub-groups which are known to possess special features relating to the phenomenon being studied. It might be likely that the management of instructional time in the rural areas may differ from that of the urban. The ratio for the observation is as follows: 4 rural: 8 urban. Table 1 shows the list of the sampled schools for observation.

**Table 1**

**Sampled Schools for Observation**

| Name of School           | Type of School | Circuit    |
|--------------------------|----------------|------------|
| Okyeso Catholic          | Rural          | OLA        |
| Efutu M/A                | Rural          | Efutu      |
| Kakomdu M/A              | Rural          | Pedu/Abura |
| Kubease M/A              | Rural          | Efutu      |
| St. Augustine's Practice | Urban          | Bakaano    |
| Antem M/A (Shift)        | Urban          | Aboom      |
| Bakatsir 'B'             | Urban          | Bakaano    |
| Pedu M/A 'B'             | Urban          | Pedu/Abura |
| Ghana National           | Urban          | Cape Coast |
| OLA Presby               | Urban          | OLA        |
| St Monica's Girls'       | Urban          | Aboom      |
| Amanful Catholic Boys'   | Urban          | Cape Coast |

Observation was used because it afforded the researcher the opportunity to experience at first hand and at close range the phenomenon being studied. It also enabled the researcher to be part of that experience.

### **Pre-testing of the Instruments**

There was the need for pre-testing the instruments selected to establish the validity and reliability of items. This was also to find out whether the instructions accompanying the items were explicit enough to guide the respondents to complete the questionnaire as accurately as possible. The pre-test study aided the researcher to put the instruments into better shape for use.

Five schools in the Komenda-Edina-Eguafor-Abrem (KEEA) district were randomly selected for the pre-testing. They were made up of three urban and two rural schools. All the five headteachers were studied and three teachers from each of the schools were randomly selected. The sample was made up of five headteachers-two females and three males and 15 teachers-eight females and seven males. In addition, a class was observed for a day to see how teachers used their lesson notes in teaching and looked for any interruptions and interferences of instructional time use. The choice of the KEEA district was due to the fact that apart from being conterminous with the Cape Coast district, the demographic characteristics such as language and socio-economic levels are strikingly similar.

The pre-test study was of great importance since it helped the researcher amend some items of the instruments which were not straight forward and helped check the procedure for data collection. For example, the question on "what account for teachers and pupils not responding promptly to the bell or drum as

signals in the school" was found to be rather vague. The responses given by the teachers during the pre-test study helped to reframe and split the question into two as: What accounts for teachers not responding to the bell or drum promptly; and what accounts for pupils not responding to the bell or drum promptly? There were other useful suggestions like a question to find out about how teachers engage their pupils in their absence. The responses, it was noted, were only from the point of view of the teachers themselves. To validate these responses, it was found necessary to frame another question to find out from the teachers as to how the pupils themselves were engaged in their teachers' absence which were inserted into the final write up of the instrument.

#### **Procedure for Data Collection**

Copies of the introductory letter collected from the Director, Institute for Educational Planning and Administration (IEPA) (Appendix G) were taken personally to each of the headteachers of the various public JSS. After a brief chat with the headteachers or in their absence, the assistants, to explain further the purpose of the visit and to enquire about the number of streams and gender of teachers in the school, three teachers were randomly selected by the researcher from each stream, so that a school, for example, having three streams, had nine teachers in the sample.

The questionnaires were then handed over to the headteacher to be distributed to the selected teachers on behalf of the researcher since most of the teachers were teaching in their classes. Each headteacher was interviewed, using the interview guide. One week was taken to distribute the questionnaire in all the

schools. The headteachers were requested to collect and keep the completed questionnaires, which were retrieved by the researcher after one week.

One hundred and seventy four completed questionnaires were retrieved from the teachers out of the 186 given out. This represented 93.5 % response rate, all the 44 headteachers were interviewed. Using the list of schools collected from the Municipal Education Office, 12 schools selected from the six circuits, made up of eight urban schools and four rural schools were visited for observation. Starting from Circuit One to Circuit Six, the researcher who was assisted by a colleague arrived at each school as early as 7 o'clock in the morning and remained there till 2.30 in the afternoon. One day was spent in each school at a time. This provided ample time to interview the headteachers, observe and record all events directly and indirectly.

The Form One class of each school was observed for the first six days, whilst Form Two classes were used for the second half of the observation period. The Form Three pupils had completed schooling at the time of the observation. They were therefore not included in the observations.

In order to get the true picture of all on going activities in each of the selected schools, the headteacher and teachers were met and informed of the purpose of the researchers' visit as looking for adequacy of teaching-learning materials. The researcher stayed in the classroom throughout the day to observe and record the following:

- (a) Time the first period started and ended
- (b) Time the subsequent subjects started and ended

- (c) The changing over lessons of each subject
- (d) Return to the class after break
- (e) Time the last period started and ended.
- (f) Number of subjects taught in the classes visited.

The researcher's assistant observed and recorded what went on outside the classroom, for example, teachers' and pupils' response to the bell or drum, pupils' and teachers' movement to change classes for practical work or other activities and the use of teachers' free periods.

At the end of each day, documents like timetable, teachers' lesson notebooks, log book and teachers' movement/time books as well as pupils' attendance registers and charts for the administrative/responsibility duties for teachers were inspected to make the findings of the study as valid, accurate and real as possible.

Finally, the following observations were then computed:

- (1) Total/average number of subjects taught per day of visit
- (2) Total Instructional time used or wasted for the day
- (3) Total time wasted through change over lessons
- (4) Total break time used or wasted for the day
- (5) Total time used or wasted for the first and the last periods of the day

#### **Data Analysis Plan**

The raw data gathered was checked for accuracy. The responses to the questionnaire for the teachers, the interview guide for the headteachers and

observations from selected schools were organized and analysed in line with the research questions for which the instruments were designed.

Close-ended items were pre-coded and the responses of the open-ended items were grouped. The analysis of the data was done, using the statistical package for social science (SPSS) to produce the frequencies and percentages of the sub-divisions under each of the follow headings:

- (i) Personal information
- (ii) Lesson planning and its usage
- (iii) Supervision
- (iv) Interferences in the classroom

The emerging findings were described. Majority responses on each item were accepted as representing the general view expressed by the respondents on the particular item.

The statistical method used in analysing the observational data was also descriptive. Statistical tools like the percentage and the Mean were used for analysing the following:

- (1) Total/average number of subject(s) taught or not taught
- (2) Instructional time used or wasted
- (3) Time taken for breaks
- (4) Time taken for the first and the last periods
- (5) Time taken for change over lessons



The results of the findings were interpreted and the rural and urban schools were compared to find out which locality utilized or wasted more of the instructional time.

For the purpose of confidentiality, the 12 sampled schools for observation were mixed up and coded as R1, R2 etc for the rural schools and U1, U2 etc for the urban schools. Therefore the schools listed in Table 1 do not follow any general order. The percentages and the mean of the findings were, as it is to be expected, affected by rounding off errors.

## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSION OF FINDINGS

This chapter deals with the analysis of the data gathered from 174 teachers and 44 headteachers from the 44 public JSS in the Cape Coast municipality through the use of four main instruments, that is, questionnaire, interview guide, documents and observation. The interpretation of the data has been made easier by the use of tables, frequencies and percentages.

The main focus of the study was to examine how instructional time is managed in schools in general and the classroom in particular. Variables like the use of the prescribed time table, following lesson notes in teaching, official meeting times, co-curricular activities out side the instructional time, response to the bells or drums for change over, regularity of both internal and external supervision are examined for their contribution to proper management of instructional time in schools.

This chapter, for ease of understanding, has been grouped into five main sections, bearing the research questions in mind. These are:

- (1) The personal information
- (2) Lesson planning and its usage
- (3) Supervision (External and Internal)
- (4) Interference in the classroom
- (5) Observations made

### Personal Information

The personal data of the respondents like gender, age, teaching experience, number of years as headteacher, rank and number of periods taught per week have been headed and examined. It was necessary to enquire for this information to help the researcher to know the type of respondents she was dealing with, and also establish whether their personal information had any bearing on their attitude to instructional time management.

### Gender of Respondents

Table 2 presents the sex of the teachers and headteachers.

Table 2

#### Gender Distribution of respondents (Teachers and Headteachers)

| Gender | Teachers  |       | Headteachers |       |
|--------|-----------|-------|--------------|-------|
|        | Frequency | %     | Frequency    | %     |
| Male   | 96        | 55.2  | 20           | 45.5  |
| Female | 78        | 44.8  | 24           | 54.5  |
| Total  | 174       | 100.0 | 44           | 100.0 |

For the population, statistics for 2001/02 stated that the male teachers were more than the female teachers (186 and 151 respectively). Table 2 shows that out of 174 teachers who responded, 96 teachers (55.2%) were males and 78 (44.8%) were females. The table confirms there were more male teachers in the JSS than women. Twenty headteachers (45.5%) were males while 24(54.5%) of the headteachers were females. There were more female heads than males in the

sample. The gender was evenly distributed considering the total number of teachers and school heads who responded.

### Age Group of Respondents

Table 3 below shows the age groups of teachers and headteachers.

**Table 3**

#### Age Distribution of Teachers and Headteachers

| Age Group    | Teachers  |       | Headteachers |       |
|--------------|-----------|-------|--------------|-------|
|              | Frequency | %     | Frequency    | %     |
| 20 or below  | 4         | 2.3   | -            | -     |
| 21 – 30      | 78        | 44.8  | -            | -     |
| 31 – 40      | 49        | 28.2  | 7            | 15.9  |
| 41 – 50      | 38        | 21.8  | 14           | 31.8  |
| 51 and Above | 5         | 2.9   | 23           | 52.3  |
| Total        | 174       | 100.0 | 44           | 100.0 |

Table 3 reveals that only four (2.3%) out of 174 belong to the age of 20 or below and no headteacher was between 21 and 30 years, 155 (94.8%) belonged to the ages 21 and 50 while 21 (47.7%) of the headteachers were between 31-50 age group. The data from the table also reveal the five teachers (2.9%) and 23 (52.3%) of the headteachers were aged 51 and above.

The data clearly show that majority of the headteachers were older than their teachers. It tells that controlling, directing and supervising teachers and

pupils in the school by the headteacher would be easier since as a general rule, older persons tend to be more respected.

### **Ranks of the Respondents**

The headteachers, according to GES regulations, should be at least Principal Superintendents or Assistant Directors. As expected, the study reveals that out of the 44 headteachers interviewed, seven (15.9%) of them were Principal Superintendents and as many as 37 (84.1%) Assistant Directors. Table 4 is the distribution of teachers by rank:

**Table 4**

#### **Rank of Teachers**

| Rank                     | Frequency | %     |
|--------------------------|-----------|-------|
| Teacher                  | 76        | 43.7  |
| Assistant Superintendent | 21        | 12.1  |
| Superintendent           | 32        | 18.4  |
| Senior Superintendent    | 31        | 17.8  |
| Principal Superintendent | 11        | 6.3   |
| Assistant Director       | 3         | 1.7   |
| Total                    | 174       | 100.0 |

The table shows as many as 76 of the teachers (43.7%) were teachers without any promotion yet, 84 teachers (48.3%) were Assistant Superintends, Superintendents, and Senior Superintendents. Comparing the percentage of the

headteachers' ranks to that of teachers, only 14 teachers (8.0%) to 37 headteachers (84.1%) were of the rank, of Principal Superintendent and Assistant Director. The results confirmed the GES regulation of headteachers being higher in rank than the teachers under them. Meanwhile all the teachers and headteachers were qualified professional teachers.

### Teaching Experiences of the Respondents

Table 5 presents the experiences teachers and headteachers have gained in the teaching profession.

**Table 5**

#### Teaching Experience of Teachers and Headteachers

| No of Years | Teachers  |       | Headteachers |       |
|-------------|-----------|-------|--------------|-------|
|             | Frequency | %     | Frequency    | %     |
| 10 or below | 111       | 63.8  | -            | -     |
| 11 – 20     | 44        | 25.3  | 10           | 22.7  |
| 21 – 30     | 16        | 9.2   | 25           | 56.8  |
| 31 – 40     | 3         | 1.7   | 9            | 20.8  |
| Total       | 174       | 100.0 | 44           | 100.0 |

Table 5 indicates that out of 174 teachers, as many as 111 (63.8%) have been teaching for 10 years or less, 44 (25.3%) have been teaching between 11-20 years, while 10 (22.7%) of the headteachers have been teaching for that long. Majority of the headteachers, 34 of them (77.3%) have been teaching for over 20 years and

19 teachers (10.9%) have also taught for over 20 years. The data clearly showed that headteachers were more experienced in teaching than most of their teachers, much in line with GES expectations.

Agreeing with Carnahan et al (1987), experience is another factor that influences the use of official time. They explain that experience is more than knowledge; it is knowledge applied. Application of knowledge can lead to a more effective utilization of time. According to them, people who have worked a number of years or who have done a variety of things in or outside of work generally have broader knowledge which often enhances their effectiveness. They also propose that experience is a function of the number of years of work, variety of work, of subjects studied, degree of responsibility, number of years of training of formal education, and the variety of non-job activities. Their conclusion was that the nature of experience helps to use time effectively.

#### **Number of Subjects Taught in a Week by Teachers**

According to GES regulations, every teacher is expected to teach a minimum of 25 periods and a maximum of 27 periods per week. In addition, each subject is weighted. Subjects like English and Mathematics, for instance, are allocated six periods per week while others like Fante/Culture and French each has four per week. Others like Social Studies and Religious/Moral Education have three periods per week (see Appendix C). What this means is that a teacher of, say, Social Studies in a one-stream school cannot have enough teaching periods to satisfy the GES requirements on teaching load per teacher per week. To ensure therefore that the teacher is adequately engaged, he or she would

be compelled to combine Social Studies with one or more other subjects in order to attain at least the stipulated minimum of 25 periods per week. While this arrangement appears to satisfy the minimum teaching load requirement, it does create a problem for both teachers and pupils. This problem arises because teachers generally specialise in only one subject (and to a limited extent, two subjects). Therefore, where a teacher is compelled by circumstances to teach a subject that falls outside his field of specialisation, we cannot expect a satisfactory teaching and learning experience. This state of affairs is bound to affect the performance and achievement of the pupils.

Table 6 shows the number of subject(s) taught by the teachers

**Table 6**

**Distribution of Respondents by Number of Subject(s) Taught by Teachers in a Week**

| Number of Subject(s) | Frequency | %     |
|----------------------|-----------|-------|
| 1                    | 57        | 32.8  |
| 2                    | 90        | 51.7  |
| 3                    | 25        | 14.4  |
| 4                    | 2         | 1.1   |
| Total                | 174       | 100.0 |

As illustrated in Table 6, 57 (32.8%) of the teachers taught only one subject while as many as 90 (51.7%) of them handle two subjects. Two teachers (1.1%) taught as many as four subjects a week.



### Number of Periods Teachers and Headteachers Handled

Two tables are constructed dealing with the number of teaching periods of teachers and headteachers. The teachers' teaching periods range from 18 to 35 periods a week. Tables 7 and 8 illustrate the teaching periods for the teachers and headteachers respectively:

**Table 7**

#### Number of Teaching Periods for Teachers for a Week

| Number of Periods | Frequency | %     |
|-------------------|-----------|-------|
| 18 – 20           | 61        | 35.1  |
| 21 – 23           | 33        | 19.0  |
| 24 – 26           | 51        | 29.3  |
| 27 – 29           | 15        | 8.6   |
| 30 or above       | 14        | 8.0   |
| Total             | 174       | 100.0 |

According to the GES, the minimum teaching periods per week per teacher is 25 and the maximum is 27 periods. Table 7 reveals that 94 (54.1%) teachers out of 174 taught between 18-23 periods a week. More than half of the respondents taught below the expected number of periods approved by the GES for the week. Sixty-six teachers (37.9%) fell within the maximum and acceptable range of periods to be taught per week by the teachers and 14 (8.0%) had more than the expected maximum periods. Teachers who teach more than the maximum are over tasked just like a school with over enrolment above the GES

stipulated maximum of 45 pupils in a class. When teachers are over tasked in their teaching, it has a negative impact on both teaching and learning.

### **Categories of Headteachers in the JSS**

From the interview with the headteachers, three categories of headship were identified in the JSS in the Cape Coast Municipality. These were headteachers for both primary and JSS; headteachers for only single or double JSS who were either completely undetached or partly undetached and headteachers for JSS who were in charge of three streams or more in the schools. The headteachers who had three or more streams and those in charge of both primary and JSS were wholly detached. They did not have any fixed periods to teach. Headteachers were therefore categorised as "detached" or "undetached"

Thirty-seven (84.1%) of the JSS had their primary schools attached to them and were on the same school compound. The headteachers were detached. Seven of the JSS had no primary schools but were fed from surrounding primary schools which had no JSS. Out of the seven JSS, two of them had more than three streams. These headteachers were also detached. The remaining five were undetached since they handled a number of periods. Thus 39 (88.6%) of the headteachers were detached and five headteachers were undetached.

According to GES regulations, headteachers of a single stream, that is, a JSS with only one class each (three classes from JS1 – JS3) should have the normal teaching periods of minimum 25 and maximum 27 just like any other classroom teacher. Double stream headteachers, should teach five periods a week and those with three streams or more, have no teaching periods at all. It is also

expected that headteachers should teach or engage a class when the teacher is absent from the school. Table 8 represents the responses of headteacher's number of teaching periods per week.

**Table 8**

**Number of Teaching Periods per Headteacher per Week**

| Number of Periods | Frequency | %     |
|-------------------|-----------|-------|
| 0                 | 39        | 88.6  |
| 1 – 5             | 2         | 4.5   |
| 6 – 10            | 1         | 2.3   |
| 11 – 5            | 1         | 2.3   |
| 16 – 20           | 1         | 2.3   |
| Total             | 44        | 100.0 |

The table shows that out of the 44 headteachers, only five of them were supposed to teach at least five periods, that is 2.9 hours a week according to GES regulations. From the data in Table 8, 39 of the headteachers (88.6%) did not have any periods to handle. Two (4.5%) of them handled between one and five periods a week, two (4.6%) had between six and 15, and one (2.3%) took 16 to 20 periods a week. From the observation and going through the records of the schools, the undetached teachers did not have regular teaching periods to handle as recommended by the GES.

### **Number of Years as Headteacher**

Headteachers were required to indicate the number of years at post. The researcher required this information because the experience of leadership counts a lot in the management of instructional time. Thirty (68.2%) out of the 44 headteachers had been headteachers for between one and 10 years, 13 (29.5%) were between 11-20 years and one (2.3%) for more than 21 years. "Experience", as the saying goes, "is the best teacher".

### **Distance Between Teachers' and Headteachers' Residence and the School**

The distance between home and school often determines the degree of lateness of the headteacher, teachers and pupils in a school. Lateness to school obviously affects the instructional time for the day, as well as the total subjects taught for the day. As pointed out in the Headteachers Handbook (1994), it is agreed that the timetable should be planned to suit the teachers as well as the locality. For example, teachers living far away from the school should not be asked to teach the first two periods since they are likely to be late.

Table 9 indicates the distance between the residence and the school of respondents

**Table 9****Distribution of Teachers by Distance Between Residence and School**

| Distance in Kilometer | Frequency | %     |
|-----------------------|-----------|-------|
| 0 - 4                 | 105       | 60.3  |
| 5 - 9                 | 49        | 28.2  |
| 10 - 14               | 10        | 5.7   |
| 15 - 19               | 5         | 2.9   |
| 20 or above           | 5         | 2.9   |
| Total                 | 174       | 100.0 |

The responses by the teachers and headteachers on the above item indicated that majority of the teachers 105 (60.3%) and 20 headteachers (45.5%) stayed closer to the school within a distance of 4 kilometer. Most of the headteachers within this short distance were living in the headteacher's bungalow built by the government. Forty-nine (28.2%) teachers and nine (20.5%) headteachers travelled between five and nine kilometers from their home to school. Ten teachers (5.7%) and seven headteachers (15.9%) travelled between 10 and 14 kilometers. Five teachers representing 2.9% and seven headteachers (15.9%) fell within 15 and 19 kilometers. The remaining five teachers (2.9%) and a headteacher (2.2%) travelled 20 kilometers or above. As Table 9 depicts, and confirmed by the attendance books (time and movement) of teachers, punctuality to school by the teachers and headteachers had improved in the JSS. In the case of the study of the management of instructional time in the JSS, the problem of lateness to school which may affect lessons did not exist and their situation was

different in the primary school as it was found out by Koomson, et al (1999) in their research into management of instruction time in some Ghanaian public primary schools. They discovered that:

With respect to lateness to schools 79(85%) of the 93 teachers who came to school on the day their respective schools were visited, reported late. The length of lateness ranged from some five to ninety minutes (ie. 8.05 to 9.30 am). The implication of lateness to this extent on use of instructional time is quite obvious as some of the day's lessons could not be either treated at all or fully treated (p.35).

#### **Planning and Use of Teachers' Lesson Notes**

Effective teaching, according to Lockheed et al (1991) is determined by the individual teacher's knowledge of the subject matter and mastery of pedagogical skills. This means that smooth presentation of a lesson and pupils' involvement depends on the knowledge and teaching skills of the teacher. The teacher first of all exhibits his knowledge and skills in the preparation of the lesson notes and in its use during the lesson. Many factors go into the planning of lesson notes, such as the materials used in planning, the style, submission for cross checking by the headteacher and the use of the lesson notes during the lesson. The responses to the above items have been presented in Tables 10 to 15 that follow.

### Materials used for Planning Lesson Notes

Data collected from respondents revealed that teachers had enough and current textbooks and syllabuses for the preparation of the lesson notes. Table 10 shows the material teachers use in preparing their scheme of work and lesson notes.

**Table 10**

#### Materials Teachers Depend on for Planning Scheme of Work and Lesson Notes

| Materials                                     | Frequency | %     |
|---|-----------|-------|
| Syllabuses only                               | 18        | 10.3  |
| Textbooks only                                | 2         | 1.1   |
| Teacher's choice only                         | 1         | 0.6   |
| Syllabuses and Textbooks                      | 64        | 36.8  |
| Syllabuses, Textbooks and Teachers own choice | 89        | 51.1  |
| Total   | 174       | 100.0 |

The data in Table 10 reveals that 18 (10.3%) out of 174 respondents relied only on the syllabus for the scheme of work and lesson notes. Two teachers (1.1%) used the textbooks only, one teacher (0.6%) depended on his own choice of material only. Sixty four teachers (36.8%) combined syllabuses and textbooks for planning of notes and majority of the teachers 89 (51.1%) depended on all the three important materials namely syllabuses, textbooks and their own choice of material for more and accurate information for their teaching. Teachers have to

be broad minded by searching wider for more reliable information and techniques of teaching to enable them make good use of the instructional time at their disposal. The findings under this heading confirmed what the Headteacher Handbook (1994) states, i.e., that teachers have been using the most current syllabuses and textbooks for planning their scheme of work and lesson notes preparation (p.39).

#### **Planning of Lesson Notes by Teachers**

Some subjects like English and Mathematics have been allocated six (6) periods per week. If for example, the six periods for English have been grouped into three double periods for three days of the week, it is ideal for the teacher to prepare each day's lesson notes. In view of this, it was necessary to find out from the teachers how they planned their lesson notes for each week. Table 11 shows how teachers planned their lesson notes for teaching.

**Table 11**

#### **Ways Teachers Prepared the Lesson Notes for each Week**

| Preparation of Lesson Note | Frequency | %     |
|----------------------------|-----------|-------|
| Daily basis for the week   | 57        | 32.8  |
| Weekly basis for the week  | 117       | 67.2  |
| Total                      | 174       | 100.0 |

Table 11 reveals that 57 (32.8%) of the teachers prepared notes on a daily basis for each week, 117(67.2%) teachers wrote weekly notes in bulk without



considering the number of times they had to teach in a week. Going through teachers' lesson note books, it was observed that teachers responses confirmed the practice they had been following in preparing their notes as Table 11 shows.

Based on data and observations made, most teachers tend to finish teaching within a day using the broad common topic for the prepared teaching notes, thus wasting instructional time: taking the rest of teaching time doing other teaching related duties. It would be better if such broad topics were broken down into sub-topics to suit each day's teaching and learning experience on the timetable.

#### **Assigning Time to Segments of the Lesson**

Table 12 shows the responses given by the teachers indicating whether or not time was assigned to various segments/activities within each lesson.

**Table 12**

#### **Time Assigned to Lesson Segments/Activities by the Teachers**

| Response | Frequency | %     |
|----------|-----------|-------|
| No       | 134       | 77.0  |
| Yes      | 40        | 23.0  |
| Total    | 174       | 100.0 |

From Table 12, the study indicates that a very significant majority of the respondents did not assign any time limit to the various activities to be followed in their lessons, that 134 respondents representing 77% stated that they did not

assign any time limit to the various segments of the lessons such as the introduction and the various developmental steps, as well as evaluation at the end of the lessons. On the contrary, only 40 respondents representing 23.0% indicated that they regularly assigned time limit to the various segments of the lesson.

Evans-Andris (2000) has observed that distribution of time within classroom is important. His findings indicated that up to 20% of classroom time is spent on non-instructional classroom management activities by the teacher. From the observation of teachers during lessons as well as going through their lesson notes, it was found out that those who assigned time to their activities moved systematically and smoothly through the lessons.

These findings agree with Evans-Andris (2000) and also with Tamakloe, et al (1996) who have pointed out that success of any lesson depends upon the quality of its plan. They state that good teaching, like any other human endeavour, demands thorough preparation.

#### **Vetting of Teachers' Lesson Notes by the Headteacher**

Teachers are expected to submit their lesson notes to the headteacher on Monday, or latest by Tuesday, for vetting. Headteachers have to vet the notes taking into consideration the instructional design viz the topic, the objectives, the evaluation and the teaching materials to be used. Teachers prepare the lesson notes (a) to guide them in their teaching (b) to be used by other colleagues in their absence. (Headteachers' Handbook 1994). Table 13 shows the responses of teachers on the submission of lesson notes for vetting.

**Table 13**

**Vetting of Teachers' Lesson Notes**

| Day       | Frequency | %     |
|-----------|-----------|-------|
| Monday    | 152       | 87.2  |
| Tuesday   | 16        | 9.2   |
| Wednesday | 6         | 3.4   |
| Thursday  | -         | -     |
| Friday    | -         | -     |
| Total     | 174       | 100.0 |

The study revealed that a high percentage of respondents 87.2% that is 152 out of 174 teachers submitted their lesson notes on Mondays. Sixteen (9.2%) teachers did so on Tuesdays and six (3.4%) teachers submitted their lesson notes on Wednesdays. Asked whether the teachers' notes were vetted promptly, 41 headteachers (93.2%) out of 44 respondents indicated that they vetted the notes promptly as soon as teachers submitted them. Three headteachers (6.8%) accepted that some teachers delayed in the submission of their lesson notes but the notes were vetted with minimum delay, usually within the day of submission.

To prove the submission and vetting of lesson notes on schedule, charts had been made and displayed openly on the notice boards in headteachers' offices to serve as a ready indicator of both the headteachers and the teachers attitude to submission and vetting of lesson notes respectively. This method encouraged both teachers and their headteachers to treat the submission and writing of lesson

notes with the requisite degree of seriousness.

### **Teacher Following Lesson Notes for Teaching**

Preparing the scheme of work and lesson note is one thing and following it for teaching purposes is quite another. The study therefore examined whether or not teachers followed their lesson notes for teaching. The findings indicated that a good proportion of the respondents (71.8%) always followed the lesson plan without any deviations while 49 (28.2%) some times did not follow their lesson plans faithfully.

### **Reasons for Not Following the Lesson Plan in Teaching**

To probe this issue further, teachers were asked for the reasons for not always following their lesson plans. The 49 teachers who sometimes deviated from their lesson notes gave reasons that have been captured in Table 14.

**Table 14**

### **Reasons for Deviating from the Prepared Lesson Plans for Teaching by Teachers**

| Reasons   | Frequency | %            |
|---|-----------|--------------|
| Interruption of lessons due to co-curricular activities, staff and other formal meetings    | 12        | 24.49        |
| Pupils questions/responses compelling teacher to shift focus and/or direction of the lesson | 11        | 22.45        |
| Pupils' expected previous knowledge proving unfounded                                       | 7         | 14.29        |
| Changing of teaching methods to better bring home what is being taught                      | 9         | 18.37        |
| Extra attention given to the weak pupils  | 10        | 20.41        |
| <b>Total</b>  | <b>49</b> | <b>100.0</b> |

The data from Table 14 indicates that out of the 49 teachers who did not always follow their lesson plans, 12 (24.49%) gave interruption of teaching and learning activities as their reasons. As noted by Shalaway (1998), moving from one classroom to another, interruption and other periods of non-instructional time account for at least 27% of an elementary school day. In Ghanaian schools of today, teachers, pupils and headteachers are called at any time of the day to engage in the non-instructional activities. For example, pupils are selected for rehearsals for, say, march past during instructional time; teachers could be called for meetings at any time during school hours. Under such circumstances, the teacher is compelled to set aside the lesson notes for the particular period and to revise a previous lesson or turn the periods into a story telling session, for instance.

The way pupils responded to teachers' questions during the lesson, according to 11 teachers (22.45%) made them deviate from their vetted lesson notes. Seven teachers (14.29%) deviated as a result of pupils' poor or sometimes non-existent previous knowledge of the topic. For easy teaching, understanding and learning, teachers have to build their lesson from the known to the unknown, that is, pupils should have knowledge on the topic from their previous experiences. Without the previous knowledge, the teacher has to alter the method of teaching. By so doing, nine teachers (18.37%) had to change their way of teaching on occasion to achieve the stated objectives of the lesson. In addition, 10 teachers (20.41%) had found it necessary to teach very slowly, repeating points earlier on made and involving the pupils in more interactive activities to assist the

weaker ones in their class to follow the lesson. It was worth looking into the completion of lessons at the time (duration) stated on the timetable since there were sometimes deviations from teachers' lesson notes.

### **Completion of Lessons as Scheduled on the Time Table**

Interestingly, from the responses to the above 137 (78.7%) out of 174 were able to complete lesson scheduled on the time table, 37 (21.3%) teachers were most of the time unable to complete lessons at the times given. Probing further, teachers were asked to state why it should happen that way. A table is drawn to indicate the responses given by the teachers.

**Table 15**

### **Reasons for not being able to Complete Lessons as Scheduled on the Time**

**Table**

| Reasons  | Frequency | %          |
|--|-----------|------------|
| Interruption as a result of co-curricular activities | 2         | 5.41       |
| Interruption as a result of meetings                 | 3         | 8.11       |
| Insufficient time for the Lesson                     | 9         | 24.32      |
| Pupils' understanding of topic                       | 11        | 29.73      |
| Interference by other teachers, officers, parents    | 3         | 8.11       |
| The use of sign language                             | 2         | 5.41       |
| Practical work/evaluation                            | 7         | 18.92      |
| <b>Total</b>   | <b>37</b> | <b>100</b> |

Out of the 37 teachers who gave reasons as to why lessons could not be completed within the stated duration, two (5.41%) and three (8.11%) stated the interruptions of co-curricular activities and meetings respectively affected the instructional time since pupils and teachers could be called at any time during their instructional activities to attend a meeting or engage in one activity or the other. Nine teachers (24.32%) stated the time for the lesson was insufficient. Carron (1997) has pointed out that poor time tables could lead to underutilization of teachers. The timetable should be planned to have more double periods for enough time for lessons, practical work and evaluation at the end of the lesson. Seven teachers (18.92%) according to the table stated that practical work took up some time, 11 (29.73%) teachers gave the reason as pupils finding it difficult to understand the lesson. This affected working within the stipulated time as teaching methods, questioning, individual attention, and evaluation had to be adjusted to assist pupils' understanding. The table also reveals that three (8.11%) teachers stated that interferences by other teachers and officers were contributory factors in not completing a lesson. Finally, two teachers, (5.41%) from the deaf and dumb school, stated that using the sign language slowed down the activities of the lesson.

### **Supervision**

Frequent supervision is needed in our Ghanaian schools. Pupils, teachers and even the headteachers need supervision. Supervision makes people alert in

their work and their use of time to the full. When headteachers and teachers are not properly supervised, they tend to relax. Owusu (1999) points out,

Effective supervision is a key factor in goal achievement. To supervise is to rigorously find out that parts of a system are working according to plan. It is to ensure that every resource – man, money, material and time - is utilized to the benefit of the department. The head has to take note of and instill into his staff, the efficient use of money, material and time. Staff time particularly the time of junior staff, must be monitored and effectively used. (p. 126).

In this study, two types of supervision have been considered, external and internal supervisions. The external supervision is from the District, the Regional or the Unit offices and the internal is from the headteacher or, in his absence, the assistant headteacher. At a press conference held by the Minister of Education, (18/02/03) he stated "effective supervision in our schools is needed for the improvement of education in our nation". He pointed out that the headteacher, who is the front line of the school, has to supervise his teachers and pupils. The circuit supervisors, with the help of the zonal and district officers, have a duty to supervise the headteachers. He concluded his comments on supervision that the services of the Parent-Teacher Association (PTA) and the School Management Committee (SMC) should be employed to assist with the supervision of schools. According to Wiles, (as cited in Neagley and Evans, 1970):



The function of supervision is to effect changes in the curriculum, instruction, and learning in school. Supervisors are therefore expected to provide leadership and competency in developing an organization and a working environment that makes possible, continuous improvement in curriculum, instruction, and learning. (p.26).

Good utilization of instructional time depends on effective supervision. In his comment on time management practices in the central administration of the UCC, Sefenu (2001) pointed out that 78.3% of his respondents indicated that even though there were some time control measures in place at the central administration, non-enforcement remained the main obstacle to effective time use. In his opinion, one thing needed to reverse that trend was effective supervision at all levels. (p.80).

Teacher respondents were required to indicate the level of supervision of the school by the headteacher. Table 16 clearly gives teachers' views of visits made by the school headteacher to their various classrooms. The table establishes that three teachers (1.7%) never had visits while they were in the classroom teaching, 33(19.0%) teachers seldom had their headteachers visiting them, 51 (29.3%) indicated "often", 67 (38.5%) gave "very often" as their response and 20 (11.5%) teachers said "always".

**Table 16**

**Teachers' Responses on Headteacher Visits to Classrooms**

| Headteachers' Visits | Frequency | %     |
|----------------------|-----------|-------|
| Never                | 3         | 1.7   |
| Seldom               | 33        | 19.0  |
| Often                | 51        | 29.3  |
| Very Often           | 67        | 38.5  |
| Always               | 20        | 11.5  |
| Total                | 174       | 100.0 |

One hundred thirty-eight (138) teachers, representing (79.3%) more than half of the respondents testified that their headteachers regularly visited them. A healthy working atmosphere is created when headteachers have a good working relationship with their teachers, just as regular interactions promote good teaching and learning, the teachers are always happy to stay in their classrooms to use the instructional time to its fullest.

When headteachers were asked about their visits to the teacher in the classroom, 13 of them (29.5%) said they seldom found time to visit their teachers in the classroom. This, they attributed to the administrative duties and regular meetings they frequently attended. Eleven (25.0%) said they often visited their teachers, three (6.8%) very often visited their teachers and 17 headteachers (38.6%) always visited their teachers for observation and later advised where

necessary. The majority of the headteachers, as testified by their teachers, did the supervisory work in their schools.

Clarke and Keating (1995) have observed that interaction in schools by the teacher and pupils, teacher and teacher, headteacher and teachers, headteacher and pupils was the most satisfying aspect of life in the school. Teachers' self esteem is thereby recognized. Carnahan et al (1987), assert that the administrator's overall effectiveness depends largely on how he or she knows and works with his or her superiors and subordinates. The level of interpersonal relationships is essential and the use of time is very much keyed to the character of colleagues at the work place.

The headteachers were asked what they looked for during their visits to the teacher's classroom and seven (15.9%) stressed they looked for class control and effective teaching. It is generally accepted that effective class control brings about discipline which, in turn, helps with proper utilization of instructional time. When the class is noisy, part of the instructional time is used to control the pupils. Twenty (45.5%) looked for involvement of both teachers and pupils in the teaching and learning process, two (4.5%) mentioned inspection of teaching and learning materials and their usage while 15 of the head teachers (34.1%) concentrated on the teaching methods the teachers employed.

On the question whether headteachers checked pupils' exercise books to see the volume of work done together with homework given and marked, 42 headteachers (95.7%) often checked, signed and dated. This assertion was

confirmed by cross-checking some of the pupils' exercise books. Only two headteachers (4.5%) hardly went through the pupils' exercise books to check.

The headteachers were asked how often the external supervisors paid visits to the classrooms while teachers taught to see how instructional time was being utilized, and what they looked for when they visited the various classes. The responses given by 20 headteachers (45.5%) was that the circuit supervisors visited their schools often and 24 (54.5%), representing the majority of the respondents, said the officers seldom visited their schools. The officers usually went through documents like the log book, teachers' lesson notes and pupils' attendance registers. The visit was mostly done at the beginning of the term, which they regarded as 'quick visits' and later, getting to the end of the term. For more information, the logbooks were inspected and the observations recorded therein confirmed and agreed with the findings of Koomson et al (1999) who concluded that:

headteachers have shirked either their responsibility of managing their schools effectively or failed to receive the support from the district education office. Records from the schools' log books indicated that although the district education officers visited the school, their visits focused not on how instructional time was utilized but on whether headteachers accurately kept accounts of fees collected for the District Directorate (p.40).

Atakpa and Ankomah (1998) have also remarked in their study on instructional time management in effectively managed schools that "the heads do not also have time to supervise teaching and learning in the schools since they claim they are overburdened with teaching themselves". (p 9).

In the JSS the reasons put forward by some of the headteachers for their inability to visit their teachers in the classrooms all centred around heavy administrative work schedule. This is against the background that most of the headteachers at the JSS level are detached, with no teaching load, except in an emergency where the head is expected to stand in for a teacher who could not be present in school for one reason or the other. This situation offers a contrast to the observations of Koomson et al (1999) and Atakpa and Ankomah (1998) whose studies dwelt on the situation in the primary school where the headteachers are usually required to combine their supervisory and administrative duties with some amount of teaching. When external supervisors are involved in school affairs on a regular basis, headteachers and teachers as well as pupils are always on their toes with their teaching and learning which ensures good performance and excellent academic achievements.

### **Interferences During Instructional Time**

The study looked at some of the interferences that could affect the instructional time use. Teachers' administrative duties and assigned responsibilities, official meetings whether in the school or elsewhere, co-curricular activities like sports and games, scheduled during instructional time may affect teaching and learning which brings about misappropriation and

mismanagement of time, since no definite period or time has been allocated for such activities on the time table. Other factors like outside distractions, using instructional time for other related duties like marking of exercises, writing of notes, school worship, interruption by parents or visitors may interfere and waste the instructional time. On being asked whether staff and other official meetings were held during instructional hours, the teachers' responses were as detailed in Table 17

**Table 17**

**Meetings Interfering with Instructional Time**

| Responses | Frequency | %     |
|-----------|-----------|-------|
| No        | 27        | 15.5  |
| Yes       | 35        | 20.1  |
| Sometimes | 112       | 64.4  |
| Total     | 174       | 100.0 |

As revealed in Table 17, 27 (15.5%) respondents indicated that meetings did not interfere with the use of instructional time. Thirty-five (20.1%) indicated that meetings interfered with their contact hours and 112 (64.4%) confirmed that meetings sometimes affected the instructional times. On the whole, a total of 147 (84.5%) claimed the interruption of instruction time by meeting as a contributing factor to the mismanagement of time in our schools.

Probing further, when the headteachers were asked the same question as their teachers, 33 (75.0%) of the headteachers confirmed that staff meetings,

official meetings and co-curricular activities were always held during the instructional time and 11 (25.0%) claimed the activities mentioned sometimes affected instructional time.

The headteachers were asked for the time of the day meetings were held. Twelve (27.3%) gave the break period but added that it usually extended into the next lesson. Fourteen of them (31.8%) stated the last two periods or the last period was used for such meetings. Eighteen headteachers (40.9%) talked of emergency meetings, which were attended whenever the need arose or official letters were received summoning them. Such meetings were held normally during class time.

As regards co-curricular activities, the following responses were given by the headteachers: 11 (25.0%) responded that the activities were held during normal class hours, 21 (47.7%) stated that sporting activities were held in the mornings before classes and admitted that at times these activities ate into the first lesson of the day. The last two periods of Thursdays and Fridays were often used by 12 headteachers (27.2%) for co-curricular activities. It is interesting to note that the reason given by all the 44 headteachers using instructional time for such activities was that teachers did not like the idea of using their out-of-school time for school activities. Most teachers offered reasonable excuses for shying away from the out of school time. In order for the headteachers or the officers to get hold of all the teachers, school contact hours were therefore used.

### Administrative Duties of the Teachers

Another important factor worth looking into was the administrative duties of the teachers. The duties performed by the teachers included classroom teaching, form master, teacher on duty, assistant headteacher, house or sectional teacher. Table 18 gives the detailed responses given by the teachers.

Table 18

#### Distribution of Administrative Duties Performed in the School by Respondents

| Duties  | Frequency | %     |
|---|-----------|-------|
| Assistant head-teacher                              | 18        | 10.3  |
| Class teacher                                       | 49        | 28.2  |
| Teacher on duty                                     | 61        | 35.1  |
| House/section teacher                               | 5         | 2.9   |
| Teacher on duty/Class teacher                       | 36        | 20.7  |
| Examination Co-ordinator                            | 1         | 0.6   |
| Teacher on duty/class teacher house/section teacher | 4         | 2.3   |
| Total   | 174       | 100.0 |

Concerning teachers' administrative duties performed in the school, 18 (10.3%) were assistant headteachers, 49 (28.2%) were class teachers, 61 (35.1%) were teachers on duty, a duty which they rotated weekly. Five (2.9%) indicated they were house or sectional teachers, 36 of the teachers (20.7%) held two duties in the



school, there was one (0.6%) teacher who was the examination co-ordinator and four (2.6%) performed three duties, that is, teacher on duty, class teacher and house teacher.

### The Responsibilities of the Teachers

In addition to the administrative duties teachers held in the schools, many of them were also assigned responsibilities like PTA and SMC secretary, health teacher and staff secretary. Table 19 shows the distribution of responsibilities:

**Table 19**

#### The Assigned Responsibilities of the Teachers

| Duties   | Frequency  | %            |
|--|------------|--------------|
| No responsibilities assigned                                 | 47         | 27.0         |
| P.T.A. Secretary   | 12         | 6.9          |
| Sports/games teacher   | 32         | 18.4         |
| Staff Secretary  | 13         | 7.5          |
| Health teacher   | 29         | 16.7         |
| School club teacher  | 35         | 20.1         |
| Guidance and Counseling Co-ordinator                         | 2          | 1.1          |
| PTA Secretary, Staff Secretary and Health teacher            | 1          | 0.6          |
| Ghana National Association of Teachers (GNAT) representative | 1          | 0.6          |
| SMC representative   | 1          | 0.6          |
| Staff Secretary and club teacher                             | 1          | 0.6          |
| <b>Total</b>   | <b>174</b> | <b>100.0</b> |

Table 19 shows that 47 out of 174 teachers (27.0%) claimed they were not assigned any responsibility apart from their administrative duties, they assisted their colleagues in the responsibility tasks. Twelve teachers (6.9%) were PTA secretaries, 32 (18.4%) were responsible for sports and game, 13 (7.5%) were school staff secretaries, 29 (16.7%) were responsible for the health of the pupils, 35 (20.1%) were in charge of school clubs like debate, spelling 'B', drama, Green Earth, two teachers (1.1%) said they were guidance and counselling co-ordinators, one teacher held three offices, PTA, staff secretary as well as being responsible for health. A teacher (0.6%), in each case, was the representative of GNAT and SMC and another (0.6%) was the staff secretary as well as the school club teacher. Looking into teachers' teaching load, their administrative and other duties, it can be realised that the teachers' workload is heavier than one can see from the timetable. Harris and Libo (1960) define workload as all the time and energy directly or indirectly employed by headteachers and teachers to perform their duties. They see workload as embracing time spent on actual teaching as well as time spent on other related duties. Because the timetables only indicate the teaching and learning activities, one would ask the time of the day that teachers perform these other duties. Since the administrative and responsibility roles are not recorded on the timetable, teachers use about 145.5 minutes per week on the average of the instructional time to attend to the duties they are assigned. This contributes significantly to the misapplication of instructional time.

### Plans Teachers Drew up to Occupy Pupils in Their Absence

The researcher was interested in knowing from the teachers and the headteachers what was done to occupy the pupils in the absence of teachers.

**Table 20**

#### Teachers' Plans of Occupying Pupils

| Plans   | Frequency | %     |
|---|-----------|-------|
| Give class exercise   | 99        | 56.9  |
| Ask another teacher to take control                             | 52        | 29.9  |
| Give class exercise and ask another teacher to supervise pupils | 20        | 11.5  |
| Leave pupils to do their own work                               | 3         | 1.7   |
| Total   | 174       | 100.0 |

As illustrated in Table 20, as much as 99 (56.9%) of the total respondents gave class exercises to their pupils before they absented themselves from classes. Fifty-two (29.9%) in their absence, asked other teachers to look after their classes, 20 teachers (11.5%) gave class exercises, and at the same time, asked a colleague to supervise the pupils in their classroom on their behalf, only a few teachers, three in all (1.7%) left pupils to do their own work.

### Teachers' Indication on How Pupils Occupy Themselves when Teacher was Absent from Class

To be sure pupils used the time profitably, it was further asked despite the responses given by the teachers, what the pupils themselves did when a teacher was absent.

Table 21

#### How Pupils Occupy Themselves when Teacher was Absent from Class

| Responses                                     | Frequency | %     |
|---|-----------|-------|
| A different teacher takes charge of the class | 73        | 41.9  |
| Pupils do the exercises given to them         | 37        | 21.3  |
| Pupils copy notes                             | 5         | 2.9   |
| Pupils do their own studies                   | 42        | 24.1  |
| Peer teaching is done                         | 7         | 4.0   |
| Some pupils stay idle and disturb others      | 10        | 5.7   |
| Total   | 174       | 100.0 |

Data collected show that pupils were really occupied when teachers were absent. Seventy-three of the teachers (41.9%) testified that other teachers took control of the class when a subject teacher was not present. Once a teacher sat in a class, pupils were obliged to be serious with their work, 37 (21.3%) said pupils did the exercises given to them by their teachers. The response of five teachers (2.9%) indicated that pupils occupied themselves by copying notes, 42 (24.1%) stated that the pupils did their own studies while their teachers were absent. Peer

teaching was done in the case of seven (4.0%) of teachers and 10 (5.7%) mentioned that some pupils wasted their time by staying idle or disturbed the serious ones when the class teacher was absent.

Headteachers were asked to respond to the above item and their responses strengthened what the teachers had already testified. Sixteen (36.4%) said exercises were given to the pupils by their teachers, which made pupils busy when their teachers were absent, 21 (47.7%) responded that either the headteacher or a teacher took over the class and seven (15.9%) confirmed pupils talked and disturbed when the teacher was absent and the headteacher or other teachers were occupied at the time.

#### **The Use of Teachers' Free Periods on the Time Table**

On the average, the teachers had four free periods of 35 minutes each on the time table. The required minimum number of periods for a teacher for a week is 25. The free periods are supposed to be used for other related duties. Teachers and headteachers were asked to state how the use of free periods affected the management of instructional time.

Table 22 presents the responses of the teachers. As depicted in the table, as many as three quarters of the respondents (ie.142, 81.6%) used their free time on the school time table for teaching related duties, seven (4.0%) on their administrative duties, 13 (7.5%) for their own personal activities.

**Table 22**

**Teachers' Management of their Free Periods on the Time Table**

| Responses   | Frequency | %     |
|---|-----------|-------|
| For teaching-related duties like marking of exercises, examinations, preparation of lesson note, working on continuous assessment | 142       | 81.6  |
| Administrative duties like teacher on duty class teacher, examination co-ordinator  | 7         | 4.0   |
| Personal activities   | 13        | 7.5   |
| Teaching related and personal activities  | 1         | 0.6   |
| Teaching related, administrative duties and personal activities   | 11        | 6.3   |
| Total   | 174       | 100.0 |

One teacher (0.6%) combined the teaching related and personal activities while 11 (6.3%) decided to use the time for teaching related, administrative duties, as well as for their personal activities. The views of headteachers were sought on teachers' use of their free periods. According to 24 headteachers (54.5%), a little more than half of the respondents, agreed with their teachers for using their free time for teaching related duties, 20 (45.5%) said some teachers used the time on personal activities both within and outside the school.

From observation, it was confirmed that most teachers who were free from teaching, stayed in the staff room marking pupils exercises, writing lesson notes, reading textbooks or daily newspapers, attending to injured pupils, attending to parents and collecting examination fees, among others.

### **Observed Teacher Behaviours Related to Instructional Time**

This section presents the results and analysis gathered from first hand information. The observations were analysed in line with the research questions. Under the observation, six (6) components were looked into, namely:

- (1) Response to bell or drum for signals
- (2) Number of subject(s) taught or not taught
- (3) Instructional time used or wasted
- (4) Time taken for change over lessons
- (5) Time taken for breaks
- (6) Time utilized or wasted for the first and the last periods

It must be pointed out that the percentages of the findings will be affected because of rounding up decimal errors. The official timetables of the observed classes for the day were copied out and following them, the time table actually used was drawn. Statistical measures like the Mean and percentages were used to analyse the observational data. It was necessary to find out whether the rural or urban location of the schools had any effect on the management of instructional time.

#### **Response to Bell by Teachers and Pupils**

Teachers and headteachers were asked to comment on the general response to the bell or drum as a signal for change over from one lesson to the other or break times. Table 23 and 24 present the headteachers' and teachers' responses of teachers' behaviours to bell and drums.

**Table 23**

**Response to the Bells or Drums by Teachers**

| Response     | Teachers  |       | Headteacher |       |
|--------------|-----------|-------|-------------|-------|
|              | Frequency | %     | Frequency   | %     |
| Not Promptly | 6         | 3.4   | 3           | 6.8   |
| Some Times   | 7         | 4.0   | 3           | 6.8   |
| Promptly     | 161       | 92.6  | 38          | 86.4  |
| Total        | 174       | 100.0 | 44          | 100.0 |

Bells are used in the schools to signal for a lesson to be started or to be ended. A pupil is put in charge of ringing the bell or beating the drum following the clock and the timetable. Early or late response to the bell or drum may have a positive or negative effect on the next lesson which can also affect the use of instructional time. Responding to the bell promptly can affect the use of instructional time positively in that the teacher in the class would be hinted to either leave for another lesson or give way to a new one. Out of the 174 teacher respondents, only 13 (7.5%) sometimes responded to the bells promptly. Six headteachers (13.6%) revealed that their teachers sometimes did not, as many as 161 teachers (92.0%) and 38 headteachers (86.4%) agreed about the prompt response to the school bells or drums.

There were some reasons given by the headteachers and teachers for this state of affairs, the main ones were:

- i. Having to wait for the teacher in the class to move away
- ii. Waiting for the pupils to settle and get ready for the next class



iii. Moving from one class to the other

It was observed that the reasons given above were the factors that prevented the teachers from responding to bells or drums promptly. It was also observed from the schools visited that it was the habit of some teachers to delay in responding to the bell even though pupils were ready waiting for the teacher.

From Table 24 below, many of the teachers and headteachers agreed that pupils generally responded promptly to the bell in both the rural and urban locations. From this, it can be deduced that, to a very large extent, pupils' apparent delay in responding to the bell or drum as a signal for one activity or the other was due to the teachers' own delay in responding to the bell or drum either at the beginning or at the end of an activity. The response to the bell or drum at the end of the break period by pupils was found to be very encouraging.

**Table 24**

**Pupils' Response to the Bell or Drum as Observed by the Teachers and Headteachers**

| Response     | Teacher   |      | Headteacher |       |
|--------------|-----------|------|-------------|-------|
|              | Frequency | %    | Frequency   | %     |
| Not promptly | 23        | 13.2 | 4           | 9.1   |
| Sometimes    | 28        | 16.1 | 6           | 13.6  |
| Promptly     | 123       | 70.7 | 34          | 77.3  |
| Total        | 174       | 100  | 44          | 100.0 |

iii. Moving from one class to the other

It was observed that the reasons given above were the factors that prevented the teachers from responding to bells or drums promptly. It was also observed from the schools visited that it was the habit of some teachers to delay in responding to the bell even though pupils were ready waiting for the teacher.

From Table 24 below, many of the teachers and headteachers agreed that pupils generally responded promptly to the bell in both the rural and urban locations. From this, it can be deduced that, to a very large extent, pupils' apparent delay in responding to the bell or drum as a signal for one activity or the other was due to the teachers' own delay in responding to the bell or drum either at the beginning or at the end of an activity. The response to the bell or drum at the end of the break period by pupils was found to be very encouraging.

**Table 24**

**Pupils' Response to the Bell or Drum as Observed by the Teachers and Headteachers**

| Response     | Teacher   |      | Headteacher |       |
|--------------|-----------|------|-------------|-------|
|              | Frequency | %    | Frequency   | %     |
| Not promptly | 23        | 13.2 | 4           | 9.1   |
| Sometimes    | 28        | 16.1 | 6           | 13.6  |
| Promptly     | 123       | 70.7 | 34          | 77.3  |
| Total        | 174       | 100  | 44          | 100.0 |

Before the beginning of the first lesson of the school day, there is a morning assembly followed by registration of pupils. All these have been allotted times on the timetable (Appendix B). Early or late start of the first lesson for each day, will depend on the morning assemblies and the marking of pupils' attendance registers which were done by teachers on duty and the class teachers respectively. In all the 12 schools sampled for the observation, because there were rosters for the teachers on duty, the teachers reported to school early enough to supervise the pupils.

In the JSS observed, lateness did not account for lessons not being started early but rather a host of other factors affected the first lessons and the subsequent ones as well. It was found out that where the first period of the timetable indicated 'worship' as a lesson, there was no assembly nor registration and that most 'worship' periods travelled beyond the 35 minutes into the next period. It was also observed that Monday inspections of the pupils' uniforms and personal hygiene checks affected the first periods. In addition, lengthy announcements at assemblies contributed to the late start of the first lesson thus eating into the instructional time. The first period, in particular, is of critical importance. For one thing, it sets both the tone and the pace for the day's work. Quite expectedly, if a part of the first period is eroded as a result of any of the reasons given above, the subsequent periods are bound to be affected. It does not merely involve throwing the schedule for the day out of gear; it involves *loss* of instructional time.

Similarly, the very last period on the timetable is equally important in the consideration of the use or misuse of instructional time. One would expect that

by going beyond the stipulated closing time, any loss of time suffered at the beginning of the day's work would be made up for. However, more often than not, and the earlier loss of time notwithstanding, the closing time is observed rather rigidly, leaving the earlier instructional time loss unaccounted for. Tables 25 and 26 show the total instructional time utilized or wasted for the first and the last periods.

#### **Utilisation of First Period**

As shown in Table 25, in the 12 schools visited, a total of 445 minutes with an average of about 37.1 minutes was expected of each school's first period. Approximate average duration of 26.3 minutes per school was observed to be utilized and an average of about 10.8 minutes was wasted. The table indicates that in the four rural schools, 140 minutes giving an average of 35 minutes per school was expected to be used for the first period of the day. Out of the expected duration, 86 minutes of the total time was used which gives an approximate average of 21.5 minutes, while total time wasted was 54 minutes about 13.5 minutes on the average. In the eight urban schools, a total of 305 minutes representing an average of 38 minutes was expected to be taught for the eight days of observation for the first periods. Out of 305 minutes, 229, an average of 28.6 minutes was used in each school, giving a total of 76 minutes which comes down to an average of 9.5 minutes wasted. Comparing the two types of schools, the urban schools utilized more of the instructional time, that is, 28.6 minutes as against 21.5 minutes and wasted as much as 9.5 minutes as against the rural schools' 13.5 minutes.

**Table 25**

**Total Instructional Time Utilized or Wasted for the First Period in the Observed schools in Minutes**

| Type of School | No. of School | Official Time (OT) |            | Actual Time (AT) |            | Difference Between OT and AT |                 |
|----------------|---------------|--------------------|------------|------------------|------------|------------------------------|-----------------|
|                |               | Total OT           | Average OT | Total AT         | Average AT | Total OT & AT                | Average OT & AT |
| Rural          | 4             | 140                | 35.0       | 86               | 21.5       | 54                           | 13.5            |
| Urban          | 8             | 305                | 38.1       | 229              | 28.6       | 76                           | 9.5             |
| Total          | 12            | 445                | 37.1       | 315              | 26.3       | 130                          | 10.8            |

### **Utilization of Last Period**

Table 26 reveals the time used or wasted in the last period of each day in each of the 12 schools. The total official duration was 445 minutes with an average of about 37.1 minutes. It was observed that for the 12 days used, 272 minutes representing about 22.7 on the average, was recorded as the time used for the last period and 173 an approximate average of 14.4 minutes was wasted. The table shows that, in the four rural schools, out of the 140 minutes with an average of 35 minutes per school, a total of 105 minutes, an average of 26.3 minutes, was recorded as instructional time used and 35 minutes approximately, an average of 8.8 minutes as wasted time in each of the schools visited in the rural sector as against the 305 minutes with an average of 38.1 expected instructional time in the eight urban schools. It was realised that an average of about 20.9 minutes was utilized and the wasted instructional time recorded an average of 17.3 minutes per school. The total observed instructional time for the last period in the urban schools was 167 minutes and 138 minutes of that time was wasted. It is clear from the analysis that the rural schools utilized more of the last period than the urban schools.

**Table 26**

**Total Instructional Time Utilized or Wasted for the Last Period in the Observed Schools (in Minutes)**

| Type of School | No. of School | Official Time (OT) |            | Actual Time (AT) |            | Difference Between OT and AT |                 |
|----------------|---------------|--------------------|------------|------------------|------------|------------------------------|-----------------|
|                |               | Total OT           | Average OT | Total AT         | Average AT | Total OT & AT                | Average OT & AT |
| Rural          | 4             | 140                | 35.0       | 105              | 26.3       | 35                           | 8.8             |
| Urban          | 8             | 305                | 38.1       | 167              | 20.9       | 138                          | 17.3            |
| Total          | 12            | 445                | 37.1       | 272              | 22.7       | 173                          | 14.4            |

In the JSS even though Life Skills and the Physical Education are on the timetable, they are not examinable subjects. As a result, many teachers often ignore teaching the subjects, leaving pupils to do their own work. Such periods are also used for weeding the school compound. In a particular school visited, a day's last two periods had been allotted for a co-curricular activity titled "Youth programme" on the timetable at the expense of an approved curriculum for the school. Refer to Appendix H & I for details to Tables 25 and 26.

#### **Instructional Time Taken for the Change Over Lesson**

In all the schools observed, there was ample evidence that teachers and pupils needed some time between periods as change over time. The prescribed timetable (see Appendix B) does not allow time for the change over.

Observation revealed that between any two periods, teachers lost not less than one minute and as much as 6.6 minutes to change to the next period. Pupils had to pack their books and gather new ones for the next lesson. Some pupils and teachers had to move from one workshop or classroom to another. The loss of instructional time during the change over from one lesson to another has been shown on Table 27.



**Table 27****Total Instructional Time Taken for Change Over Lessons in Observed Schools (in Minutes)**

| Type of School | No. of School | Official Number of Subject (ONS) | Actual Number of Subject (ANS) | Total Official Time (OT) | Total Actual Time (AT) | Average AT |
|----------------|---------------|----------------------------------|--------------------------------|--------------------------|------------------------|------------|
| Rural          | 4             | 22                               | 18                             | 0                        | 63                     | 3.5        |
| Urban          | 8             | 49                               | 42                             | 0                        | 123                    | 3.4        |
| Total          | 12            | 71                               | 60                             | 0                        | 191                    | 3.2        |

The total change over time wasted in the four rural schools observed for four days was 63 minutes. This gave an average of 3.5 minutes. The total time used for the change over in the eight urban schools which were observed for eight days, on the other hand, was 128 minutes, an average of 3.4 minutes. Comparatively, the difference between the rural and the urban was only a minute. Refer to Appendix J for a suggested timetable allowing five minutes for the change over. See Appendix K for details.

**Break Time**

The total average official break time recorded for the 12 observed schools was 37.1 minutes per school per day and the observed average was 37.0 minutes. This time indicated that the effect of break period on instructional time in all the schools was zero. Pupils did not over spend their break times. On the contrary, they often got to the classrooms 0.1 minute earlier than the time allowed.

**Table 28****Utilization of Break Time**

| Type of School | No. of School | Official Time (OT) |            | Actual Time (AT) |            | Difference Between OT and AT |                 |
|----------------|---------------|--------------------|------------|------------------|------------|------------------------------|-----------------|
|                |               | Total OT           | Average OT | Total AT         | Average AT | Total OT & AT                | Average OT & AT |
| Rural          | 4             | 150                | 37.5       | 146              | 36.5       | 4                            | 1               |
| Urban          | 8             | 295                | 36.9       | 298              | 37.3       | -3                           | -0.3            |
| Total          | 12            | 445                | 37.1       | 444              | 37.0       | 1                            | 0.1             |

Comparing the two types of schools, Table 28 clearly shows that, the total official break time spent in the four rural schools observed had an average of 37.5 minutes as against the observed time of 36.5, one minute less than the official time given. On the other hand, the eight urban schools' total official time for breaks recorded was 295 minutes, an average of about 36.9 minutes. The actual time used was a total of 298 minutes an approximate average of 37.3 minutes bringing the difference to -3, that is an expenditure of 3 minutes over the approved time. This gives an average of about -0.3 minutes per urban school.

Interestingly, the rural schools were more time conscious than the urban schools. In actual fact, the break times did not affect instructional time. (see Appendix L for details of Table 28).

#### **Total Number of Subjects Taught or Not Taught**

The prescribed blank timetable (see Appendix B) is supposed to have nine teaching periods per day. There are some subjects which need to be doubled, thus making the number of expected subjects to be taught a day differ from each day of the week, the difference was also to show from school to school. In Table 29, the total number of subjects taught or not taught have been presented. The total number of subject to be taught in the JSS was either five or six in a day. See Appendix M for details .

**Table 29**

**Total Number of Subjects Taught or not Taught in Observed Schools**

| Type of School | No. of School | Official Number of |             | Actual Number of |             | Difference Between ONS & ANS |         |
|----------------|---------------|--------------------|-------------|------------------|-------------|------------------------------|---------|
|                |               | Subjects (ONS)     |             | Subjects (ANS)   |             | Total                        | Average |
|                |               | Total ONS          | Average ONS | Total ANS        | Average ANS | ONS & ANS                    | ONS ANS |
| Rural          | 4             | 22                 | 5.5         | 17               | 4.3         | 5                            | 1.3     |
| Urban          | 8             | 49                 | 6.1         | 42               | 5.3         | 7                            | 0.98    |
| Total          | 12            | 71                 | 5.9         | 59               | 4.9         | 12                           | 1.0     |

In the 12 schools sampled for the observation, a total number of 71 expected subjects were to be taught. This represented an average of approximately 5.9 subjects for each school. Out of the 71 subjects, 59, that is, 83.1% and an average of about 4.9 subjects observed were taught. That means 12 subjects (16.9%) an average of one subject was not taught in the 12 days of observations as shown in Table 29.

A total of 22 subjects were expected to have been taught in the four rural schools on the four days of visit. This implies an average of approximately 5.5 subjects per day. A total of 17 subjects, representing an average of about 4.3 subjects were, however, observed to have been taught. Averagely, 1.3 subjects, a total of 5 subjects were not taught, that is, 77.3% of subjects were taught and 22.7% were not.

The table also indicates that, out of a total of 49 expected subjects to be taught in the eight observed urban schools, an average of about 6.1 subjects per school, 42 subjects representing 85.7%, an average of about 5.3 subjects were taught and seven subjects (14.3%), an average of about 0.9 were not taught. The analysis shows that fewer subjects were left untaught in the urban schools.

In general, the average loss of 1.0 subject was not taught in the 12 schools studied. This was due to the use of time for unapproved subjects like co-curricular activities, as well as weeding, together with teacher lateness or absenteeism for one reason or the other.

#### **Total Instructional Time Used or Wasted**

Table 30 shows the total instructional time used or wasted in the schools visited.

**Table 30**

**Total Instructional Time Utilized or Wasted in Observed Schools (in Minutes)**

| Type of School | No. of School | Official Time (OT) |            | Actual Time (AT) |        | Dff. Between OT and AT |                 |
|----------------|---------------|--------------------|------------|------------------|--------|------------------------|-----------------|
|                |               | Total OT           | Average OT | Total AT         | Ave AT | Total OT & AT          | Average OT & AT |
| Rural          | 4             | 1260               | 315        | 1007             | 251.8  | 253                    | 63.5            |
| Urban          | 8             | 2715               | 339.4      | 2273             | 284.1  | 442                    | 55.3            |
| Total          | 12            | 3975               | 3313       | 3280             | 273.3  | 695                    | 57.9            |

The total official time spent on instruction in the 12 observed schools was 3,975 minutes in all, an average of 331.3 minutes for each school. Out of the total official time, it was found out that a total of 3,280 minutes, an average of 273.3 minutes (82.5%) was devoted to teaching and learning, while 695 minutes (17.5%) giving an approximate average of 57.9 minutes of instructional time wasted or misapplied.

In the four rural schools, a total of 1,260 minutes with average of 315 minutes was meant to be used for instructional time. It was observed that 79.9% was used, that is a total of 1,007 minutes, about 251.8 minutes on the average of instructional time was used in each school. This means that a total of 253 minutes representing 20.1% and about an average of 63.3 minutes was wasted.

In the eight urban schools sampled for the observation, it was noted that a total of 2715 minutes and an average of about 339.4 minutes was supposed to be used as instructional time for each day. It was found out however that out of the expected total time for instructions, a total of 2273 minutes (83.7%) an average of about 284.1 minutes was utilized whilst a total of 442 (16.3%) an approximate average of 55.3 minutes of the instructional time was wasted. This means that the rural schools wasted more teaching and learning time and therefore used less instructional time than the urban schools. Appendix N shows the detailed utilization of each school's of instructional time

## CHAPTER FIVE

### SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This study set out to examine closely the management of instructional time in the public Junior Secondary Schools in the Cape Coast Municipality. The focus on the management of instructional time arose out of a deep concern over the perceived mismanagement or waste of teaching and learning time in our JSS in general. This concern was further deepened by the fact that, quite recently, our new educational policy involved, among other things, a drastic reduction in the number of years spent in school from 17 to 12 years. Naturally enough, it was widely speculated that this sharp reduction in the teaching and learning time was likely to have very grave consequences for both teachers and learners as far as the expected amount of learning required at the pre-secondary level and even beyond was concerned. The study therefore concerned itself primarily with the time available for teaching and learning and the extent to which this time is fully utilized.

#### Summary of Findings

A study of this nature, that is, observing teachers and pupils at close range, and within the context of the school environment, calls for keen and patient observation, together with a close attention to detail. Since the study was basically about instructional time and its use/misuse, the time element was treated



as crucial and central to the task on hand. The findings arising from the study are outlined below:

1. The GES itself flouted the directives to hold meetings or summon teachers and headteachers within the specified instructional time.
2. Some co-curricular activities took place during the instructional time contrary to the GES directives on when co-curricular activities should take place (ie outside instructional time)
3. The change over from one subject to another always involved a time gain/loss for one subject or the other. This is because if one teaching period ended at, say, 8.35 am, the next period was expected to begin at exactly 8.35 am. (See Appendix B). This arrangement clearly, was found to be unrealistic since almost invariably some amount of time however minimal, is required in the change over.
4. The bell monitors were often so engrossed in the learning activity that they were often late in leaving the class to signal the change. In such cases, teachers who were engaged during such periods obviously spent more than their allotted time for those particular lessons. The corollary is that the teachers billed for the lessons immediately following lost part of their allotted instructional times.
5. As a result of the continuous loss of time in the change over periods, the cumulative effect was felt in the final periods for each day. Consequently, instead of nine periods per day some schools ended up doing eight or seven periods per day. However, this loss was supposed to have been

made up by an extension of the normal closing time (in line with the recommendation in the Headteachers Handbook 1994 p.44).

6. Internal supervision by the headteachers appears to be improved as was testified to by 87%, more than two-thirds of the teacher respondents. However, an inspection of the log books revealed that visits by inspection teams from the Municipal and Regional education offices were few and their concern was not on how the instructional time was being utilized but on other things like the number on roll of pupils, teachers and supply of books. This would seem to suggest that supervision of time used by subject teachers is mainly in the hands of the headteachers. The danger here is that if a headteacher is not strict with his monitoring of teachers as far as instructional time use is concerned, this may remain hidden from the municipal/regional educational authorities and the appropriate interventions cannot be made to ensure proper use of instructional time.
7. The teachers write weekly lesson plans. While in one respect, this may give a good picture of what the teacher proposes to achieve within the stipulated number of periods for the particular subject in one week, this was found to be a bit too generalized to give meaning or to do justice to a topic and its sub-headings. This is in recognition of the fact that every lesson must be unique and tailored to suit the peculiar imperatives of each lesson period.
8. There was not any uniformity in the manner in which time was assigned to specific segments in the lesson plan. In a few instances, this was done but

the majority of the teachers whose lesson plans I worked with did not assign any times to the various segments like the introduction, the steps and evaluation. Obviously, these assigned times can help the teacher to move systematically and eventually help him to achieve his stated objectives.

9. From the observation, the time for break period was positively adhered to. Both the rural and urban schools used the break period as given without over using it.
10. School worship which is not regarded as a suggested subject was inserted on the time table as a subject occupying a 35 minutes period of accepted subject.
11. Morning inspections of pupils' uniforms and lengthy announcements at the assembly, contributed to late start of the first lesson thus cutting into the instructional time.
12. Instructional time wasted should be blamed on teachers and not the pupils, since pupils responded promptly, but the delay came from the teachers.

### **Conclusion**

The findings of the study show strong evidence of misappropriation and mismanagement of instructional time in our schools. This should not be blamed wholly on Headteachers, Teachers and Pupils but also on the Ministry of Education and the Ghana Education Service as well.

The structure of official time table itself needs to be reconsidered. From the study, it is estimated that about five minutes need to be added to each period for teachers and pupils to get ready for the next lesson or class. It was also observed that interferences and interruptions with meetings and co-curricular activities initiated at the instance of the GES and MOE contribute to the loss of classroom contact hours. External supervisions, indispensable as they are, were not frequent. Even in the few instances when there were some inspection visits, the focus was on enrolment, supplies, lesson notes and fees to the exclusion of instructional time use.

It is hoped that the proposed time table that allows time for change over together with regular external supervision and monitoring of instructional time use will provide the necessary conditions for both teachers and pupils to maximize learning opportunities in the classroom. When this is done, again it is hoped that set academic targets will be achieved and the one year loss brought about by the new educational system will be of no serious consequence.

### **Recommendations**

As stated in Chapter one, the purpose of this study was to find out the extent to which instructional time was utilized or wasted in the schools selected for the research. The use of instructional time, as argued in this work, is so crucial to the teaching and learning enterprise that any perceived misuse or misapplication of it can have far-reaching negative consequences for the learner and indeed for the educational system at large. The findings and the recommendations arising from this study, therefore, in my opinion, should be of

more than a passing interest for the teachers, educational planners, policy makers and everybody who is connected directly or indirectly with formal education in the country. The following recommendations have therefore been made with the foregoing in view:

1. Headteachers should be very strict about the GES prescription on when co-curricular activities should take place (ie. outside the instructional time). The district/regional educational authorities should also scrutinize the individual school's timetable to ensure that co-curricular activities do not encroach upon the time table itself.
2. The timetable should allow for time for changing over from one lesson or period to another. (See Appendix J for a suggested timetable).
3. Regular visits should be made to schools by the GES because headteachers themselves also need to be supervised. In addition, officials on such visits should go beyond the usual concerns like number on roll number of teachers, supply of textbooks etc. and dwell also on instructional time use.
4. Lesson plans should be designed for each lesson so that the uniqueness of each lesson can be guaranteed. The added advantage here is that drawing up a lesson plan for each subject will ensure a more purposeful approach to teaching, together with a more specific goal or set of goals. In addition, times should be assigned to the various segments of the lesson like the introduction, pupils previous knowledge, and the various steps in the development of the lesson. This can help the teachers to keep within time

so that the stated objectives of the lesson can be attained. All of this, it must be conceded, comes through practice. A well-deigned in-service training on the writing of lesson plans and their execution could help teachers to keep a handle on the management of instructional time in the classrooms.

5. School worship which is not a suggested subject should be conducted exactly within the period assigned to it and not to extend into the next period on the timetable.
6. Circuit supervisors should design a system for checking instructional time use.
7. Teachers should respond to the bells with the same promptness as pupils so that not much instructional time would be lost.

To increase teaching time in our schools, the following tit bits would be beneficial to headteachers as well as the teachers.

- i. Time allotted for breaks and social activities should be decreased. Research shows that pupils do not need a lot of break time to refresh themselves. Long or frequent breaks may lower their involvement with academic work.
- ii. Plan for smooth transitions between lessons and always get ready with teaching materials before each lesson or activity.
- iii. Improve on pupils attendance. Attendance has a big effect on teaching and learning time.

- iv. Home work should be assigned to extend practice time, it allows pupils to practice what they have already learnt.
- v. Find out which aspects of school time you can control. With the help of the headteacher, a teacher can change the scheduling of class periods, co-curricular activity, planning time and outside interruptions. Time wasters such as unexpected visitors and frequent intercom announcements could be controlled.

#### **Recommendation for Further Research**

Instructional time management is so crucial in the teaching and learning process especially at the basic school level. This is the concern out of which this research has arisen. However, as has been indicated in the delimitation of this study, the research was conducted only in the Cape Coast Municipality. The story may well be different in other localities, for a more comprehensive picture, it is strongly recommended that similar study in instructional time management be encouraged in other parts of the country.

The results emerging therefrom, hopefully, will enable our educational planners and implementers to obtain a truer appreciation of the problem so that the appropriate steps can be taken to effectively manage instructional time and thereby maximize teaching and learning in our basic schools.

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APPENDIX A

Headquarters  
Ministry Branch Post Office  
P. O. Box M. 45  
Accra  
May 20, 2002

EP.32/VII/137

SCHOOL TERMS AND HOLIDAYS FOR BASIC EDUCATION SCHOOLS  
2002/2003 SCHOOL YEAR

The school terms and holidays for Basic Education Schools (Primary and Junior Secondary) for the 2002/2003 academic year are as follows:

PRIMARY SCHOOL

1<sup>ST</sup> TERM

17<sup>th</sup> September, 2002 - 19<sup>th</sup> December, 2002 = 14 weeks

HOLIDAYS

20<sup>th</sup> December, 2002 - 6<sup>th</sup> January, 2003 = 18 days

2<sup>ND</sup> TERM

7<sup>th</sup> January, 2003 - 10<sup>th</sup> April, 2003 = 14 weeks

HOLIDAYS

11<sup>th</sup> April, 2003 - 5<sup>th</sup> May, 2003 = 25 days

3<sup>RD</sup> TERM

6<sup>th</sup> May, 2003 - 7<sup>th</sup> August, 2003 = 14 weeks

HOLIDAYS

8<sup>th</sup> August, 2003 - 15<sup>th</sup> September, 2003 = 39 weeks

TOTAL = 42 WEEKS SCHOOL TERMS 2002-2003

JUNIOR SECONDARY SCHOOL

1<sup>ST</sup> TERM

17<sup>th</sup> September, 2002 - 19<sup>th</sup> December, 2002 = 14 weeks

HOLIDAYS

20<sup>th</sup> December, 2002 - 6<sup>th</sup> January, 2003 = 18 days

2<sup>ND</sup> TERM

7<sup>th</sup> January, 2003 - 10<sup>th</sup> April, 2003 = 14 weeks

HOLIDAYS

10<sup>th</sup> April, 2003 - 21<sup>st</sup> April, 2003 = 11 days

3<sup>RD</sup> TERM

22<sup>nd</sup> April, 2003 - 14<sup>th</sup> August, 2003 = 17 weeks

HOLIDAYS

15 August, 2003 - 15<sup>th</sup> September, 2003 = 32 weeks

Total = 45 weeks

Please note that in the 2002/2003 academic year, Primary schools will operate for 42-weeks while Junior Secondary Schools will run a 45-week calendar. It is expected that all concerned (parents, Teachers, Pupils and the general public) will lend their support to the implementation of the programme.

Thank you.

## APPENDIX B

### Regular Official Timetable

| DAY       | 7.30 - 7.50 | 7.50 - 8.00  | 8.00 - 8.35 | 8.35 - 9.10 | 9.10 - 9.45 | 9.45 - 10.10 | 10.10 - 10.45 | 10.45 - 11.20 | 11.20 - 11.55 | 11.55 - 12.05 | 12.05 - 12.40 | 12.40 - 1.15 | 1.15 - 1.50 | 1.50 - 2.00 |  |  |         |
|-----------|-------------|--------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|---------------|---------------|--------------|-------------|-------------|--|--|---------|
| MONDAY    | Assembly    | REGISTRATION |             |             |             | BREAK        |               |               |               | BREAK         |               |              |             |             |  |  |         |
| TUESDAY   |             |              |             |             |             |              |               |               |               |               |               |              |             |             |  |  |         |
| WEDNESDAY |             |              |             |             |             |              |               |               |               |               |               |              |             |             |  |  |         |
| THURSDAY  |             |              |             |             |             |              |               |               |               |               |               |              |             |             |  |  | CLOSING |
| FRIDAY    |             |              |             |             |             |              |               |               |               |               |               |              |             |             |  |  |         |

Source: Ghana Education Service, Accra (1993)

## APPENDIX C

### Suggested Allocation of Periods to Subject Per Week for JSS

| Subjects              | (35 minutes period) |
|-----------------------|---------------------|
| English               | 6                   |
| Mathematics           | 6                   |
| General Science       | 4                   |
| Agricultural Science  | 3                   |
| Pre-Technical Skill   | 3                   |
| French                | 3                   |
| Fante/culture         | 4                   |
| Pre-Vocational Skills | 3                   |
| Physical Education    | 2                   |
| Life Skills           | 2                   |

Source : Ghana Education Service, Accra (1998)



APPENDIX D

Questionnaire for Teachers

Management of Instructional Time in the Public  
JSS in the Cape Coast Municipality

Dear Sir/Madam,

This is a research project being undertaken by a post-graduate student of the Institute for Educational Planning and Administration, University of Cape Coast. The objective is to find out how Instructional time is managed in JSS in the Cape Coast Municipality.

You are kindly being requested to provide frank answers to the items of the questionnaire. The information provided will be treated as confidential and your identity as well as your school would be protected. Thank you.

Please indicate by means of ticking, the response(s) that most apply to you where responses have been provided.

Name of School: .....

Circuit: .....

School Location a. Rural [ ]

b. Urban [ ]

SECTION A – BIO-DATA (Personal Data)

(1) Sex

a. Male [ ]

b. Female [ ]

- (2) Age
- a. 20 years or below [ ] b. 21 - 30 [ ] c. 31 - 40 [ ]
- d. 41 - 50 [ ] e. 51 and above [ ]

(3) What is the distance in kilometres between your residence and school.

- a. Under 5 km [ ]
- b. 5 - 9 km [ ]
- c. 10 - 14 km [ ]
- d. 15 - 19 km [ ]
- e. 20 or above [ ]

(4) Rank

- a. Teacher [ ]
- b. Asst. Superintendent [ ]
- c. Superintendent [ ]
- d. Senior Superintendent [ ]
- e. Principal Superintendent and above [ ]

(5) Teaching Experience

- a. 10 years or below [ ]
- b. 11 - 20 years [ ]
- c. 21 - 30 years [ ]
- d. 31 - 40 years [ ]

(6) Number of subject(s) taught

- a. One [ ]
- b. Two [ ]
- c. Three [ ]
- d. Four [ ]

- (7) Number of periods taught in a week
- a. 18 - 20 [ ]
  - b. 21 - 23 [ ]
  - c. 24 - 26 [ ]
  - d. 27 - 29 [ ]
  - e. 30 or above [ ]

SCHOOL RECORDS

- (8) How do you plan your lesson notes?
- a. On daily basis [ ]
  - b. On weekly basis [ ]
- (9) Do you assign time to be spent on each of the activities of the lesson notes? a. Yes [ ] b. No [ ]
- (10) What do you use to plan your lesson notes
- a. Syllabuses [ ]
  - b. Textbooks [ ]
  - c. Teachers own choice [ ]
  - d. A and B [ ]
  - e. A, B and C [ ]
- (11) When do you normally submit lesson notes for vetting
- a. Mondays [ ]
  - b. Tuesdays [ ]
  - c. Wednesdays [ ]
  - d. Thursdays [ ]
  - e. Fridays [ ]
- (13) Do you always follow your lesson plan during teaching
- a. Always [ ]
  - b. Sometimes [ ]
  - c. Not at all [ ]



- (20) Do you hold staff or other meetings during regular instructional hours?  
 a. Yes [ ] b. No [ ] c. Sometimes [ ]
- (21) What do you do during your free periods?  
 a. Teaching related activities (eg. Marking of examinations, preparing lesson notes) [ ]  
 b. Administrative activities [ ]  
 c. Personal activities [ ]  
 d. Any other (specify) [ ]
- (22) What plans do you draw for your class(es) any time you are to be absent from school?  
 a. Give class exercises [ ]  
 b. Ask another teacher to stand in [ ]  
 c. Leave pupils on their own [ ]  
 d. Any other (specify) [ ]
- (23) In this school when a teacher is absent what do the pupils do?  
 .....  
 .....
- (24) How often does the headteacher visit teachers' classrooms for observation and coaching?  
 a. Always [ ]  
 b. Very often [ ]  
 c. Often [ ]  
 d. Seldom [ ]  
 e. Not at all [ ]
- (25) How do teachers in this school respond to bells?  
 .....  
 .....
- (26) How do pupils respond to bells?  
 .....

APPENDIX E

Interview Guide For Headteacher

School : .....

Circuit: .....

Location of School - Rural or Urban .....

Sex: .....

Age: .....

Teaching experience .....

Length of being a headteacher. ....

Are you the headteacher for both Primary and JSS? .....

Are you a detached head? .....

How many periods a week do you teach if you are not detached. ....

(1) Do teachers always respond promptly to the bell? Yes [ ] No [ ]

(2) If they do not what account for teachers not responding promptly to the bell?  
.....  
.....  
.....

(3) Do pupils always respond promptly to the bell? Yes [ ] No [ ]

(4) If they do not what account for pupils not responding promptly to the bell?  
.....  
.....  
.....

- (5) Are Teachers lesson note vetted promptly? Yes [ ] No [ ]
- (6) When do you vet teachers' lesson notes?  
.....  
.....  
.....
- (7) How often do you check pupils exercise books?  
.....  
.....
- (8) How often do you visit teachers' classrooms for observation/coaching?  
.....  
.....  
.....  
.....  
.....
- (9) What do you look for during your visit?  
.....  
.....
- (10) Do the circuit supervisors and other officers often pay working visits to teachers while teaching?  
.....  
.....
- (11) Do teachers always follow their lesson plans whilst teaching?  
.....  
.....
- (12) How is a class managed when a teacher is absent from the school?  
.....  
.....  
.....

13) What do teachers do with their free periods?

.....  
.....  
.....

(14) When are co-curricula activities of the school held?

.....  
.....  
.....

(15) How often do you hold staff meetings in your school?

.....

(16) Are staff meetings held during class hours?

.....  
.....

(17) How often does staff attend other meetings related to school?

.....  
.....

(18) What time of the day are these meetings held?

.....  
.....



## APPENDIX F

### Format for Collecting Data on the use of Instructional Time (Observation)

CIRCUIT: .....

SCHOOL: .....

CLASS: .....

DURATION OF OBSERVATION: .....

| No. of Official Subjects per day | Actual No. of Subjects taught per day | Total Official Duration for the day | Actual Duration for the day | 1 <sup>st</sup> Period and Duration Observed | Time taken for a change over lesson | Time taken for the break period | Last Period and Duration Observed |
|----------------------------------|---------------------------------------|-------------------------------------|-----------------------------|--|-------------------------------------|---------------------------------|-----------------------------------|
|                                  |                                       |                                     |                             |  |                                     |                                 |                                   |



UNIVERSITY OF CAPE COAST  
FACULTY OF EDUCATION

INSTITUTE FOR EDUCATIONAL PLANNING AND ADMINISTRATION

TEL.: 042-33824

University Post Office  
Cape Coast, Ghana

Our Ref.: EP/90/Vol.6/53

May 14, 2002.

Headmasters/Teachers  
Junior Secondary Schools  
Cape Coast Municipality

#### LETTER OF INTRODUCTION

The bearer of this letter Josephine Pokoo-Aikins is a graduate student of the University of Cape Coast. She is collecting data/information in your school for the purpose of writing a thesis as a requirement of the programme.

I would be grateful if you could help her collect the data/information from your Institution. Kindly give the necessary assistance that Ms. Pokoo-Aikins requires to collect the data.

A handwritten signature in black ink, appearing to read 'A. L. Dare', is written above the typed name.

A. L. Dare (Dr.)  
Ag. Director

### Appendix H

#### Total Instructional Time Utilized or Wasted for the First Period in the Observed Classes

| Type of School | Class    | Expected Duration of first Periods in Minute (ED) | Duration of first Periods Observed in Minutes (OD) | Diff. between Expected and Observed first period in Minutes (D) |
|----------------|----------|---|--|---|
| R1             | JS1      | 35  | X  | +35   |
| R2             | JS2      | 35  | 27   | +8  |
| R3             | JS1      | 35  | 30   | +5  |
| R4             | JS2      | 35  | 29   | +6  |
| Total          | 4        | 140   | 86   | 54  |
| Average        |          | 35  | 21.5   | 13.5  |
| %              |          | 100.0   |  |   |
| U1             | JS2      | 35  | 30   | +5  |
| U2             | JS2      | 35  | 26   | +9  |
| U3             | JS1(A/B) | 60(30/30)   | 38(15/23)  | +25(15/7)   |
| U4             | JS1      | 35  | X  | +35   |
| U5             | JS2      | 35  | 30   | +5  |
| U6             | JS1      | 35  | 40   | -5  |
| U7             | JS1      | 35  | 35   | 0   |
| U8             | JS2      | 35  | 30   | +5  |
| Total          | 8        | 305   | 229  | 76  |
| Average        |          | 38.125  | 28.625   | 9.5   |
| %              |          |   |  |   |
| G. Total       | 12       | 445   | 445  | 130   |
| Average        |          | 37.08   | 37.08  | 10.83   |

Key + sign = Time spent below or less than the official duration of subject taught  
 - sign = Time Spent above or more than the official duration of subject taught  
 x sign = No official instruction  
 A sign = Shift School (A = morning shift  
 B sign = (B = afternoon shift)

**Appendix I**  
**Total Instructional Time Utilized or Wasted for the Last Period in the**  
**Observed Classes**

| Type of School | Class    | Expected Duration of first Periods in Minute (ED) | Duration of first Periods Observed in Minutes (OD) | Diff. between Expected and Observed first period in Minutes (D) |
|----------------|----------|---|--|---|
| R1             | JS1      | 35  | 37   | -2  |
| R2             | JS2      | 35  | 32   | +3  |
| R3             | JS1      | 35  | 36   | -1  |
| R4             | JS2      | 35  | X  | +35   |
| Total          | 4        | 140   | 105  | 35  |
| Average        |          | 35  | 26.25  | 8.75  |
| %              |          | 100.0   |  |   |
| U1             | JS2      | 35  | 40   | -5  |
| U2             | JS2      | 35  | X  | +53   |
| U3             | JS1(A/B) | 60(30/30)   | 56(28/28)  | +4(2/2)   |
| U4             | JS1      | 35  | 35   | 0   |
| U5             | JS2      | 35  | 36   | -1  |
| U6             | JS1      | 35  | X  | +35   |
| U7             | JS1      | 35  | X  | +35   |
| U8             | JS2      | 35  | X  | +35   |
| Total          | 8        | 305   | 167  | 138   |
| Average        |          | 38.125  | 20.875   | 17.25   |
| %              |          |   |  |   |
| G. Total       | 12       | 445   | 272  | 173   |
| Average        |          | 37.08   | 22.67  | 14.42   |

APPENDIX J

RESEARCHER'S PROPOSED TIME TABLE FOR JSS (REGULAR)

|     |          |              | 1ST    | 2ND    | 3RD     |         | 4TH     | 5TH     | 6TH     |         | 7TH     | 8TH    | 9TH    |         |
|-----|----------|--------------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|--------|---------|
|     |          |              | 35     | 35     | 35      | 25      | 35      | 35      | 35      | 10      | 35      | 12     | 35     |         |
| Day | 7.30am   | 7.55am       | 8.10am | 8.50am | 9.30am  | 10.05am | 10.35   | 11.15am | 11.55am | 12.30pm | 12.45pm | 1.25pm | 2.05pm | 2.40pm  |
|     | 7.50am   | 8.05am       | 8.45am | 9.25am | 10.05am | 10.30am | 11.15am | 11.50am | 12.30pm | 12.40pm | 1.20pm  | 2.00pm | 2.40pm |         |
|     | Assembly | Registration |        |        |         | Break   |         |         |         | Break   |         |        |        | Closing |

A change over period of 5 minutes for each subject. Where a subject takes a double period, 5 minutes should be used by the teacher to wind-up or by pupils for evaluation work and the remaining 5 should be used for getting ready for the next period.

**Appendix K**

**Total Instructional Time Taken for Change Over Lessons in the Observed Classes**

| Type of Sch. | Class     | Expected Official No. of Subject | No. of Period Ob-Served | Periods/Duration in Minutes Per day |                 |     |     |     |     |        |     |     | Total      | Average     |
|--------------|-----------|----------------------------------|-------------------------|-------------------------------------|-----------------|-----|-----|-----|-----|--------|-----|-----|------------|-------------|
|              |           |                                  |                         | 1st                                 | 2 <sup>nd</sup> | 3rd | 4th | 5th | 6th | 7th    | 8th | 9th |            |             |
| R1           | JS1       | 5                                | 4                       | W                                   | 3               | 6   | 5   | 1   |     |        |     |     | 15         | 3.75        |
| R2           | JS 2      | 6                                | 4                       |                                     | 2               | X   | 4   | X   | 0   | 2      |     |     | 8          | 2.00        |
| R3           | JS 1      | 5                                | 5                       | 5                                   | 5               | 5   | 2   | 2   |     |        |     |     | 19         | 3.80        |
| R4           | JS 2      | 6                                | 5                       | 1                                   | 8               | 6   | 3   | 3   | X   | X      |     |     | 21         | 4.20        |
| <b>Total</b> | <b>4</b>  | <b>22</b>                        | <b>18</b>               |                                     |                 |     |     |     |     |        |     |     | <b>63</b>  | <b>3.50</b> |
| U1           | JS 2      | 6                                | 6                       | 4                                   | 5               | 4   | 2   | 3   | 2   |        |     |     | 20         | 3.33        |
| U2           | JS 2      | 5                                | 4                       | 5                                   | 0               | 5   | 5   | X   | X   |        |     |     | 15         | 3.75        |
| U3           | JS 1(A)   | 9 (5)                            | 9 (5)                   | 3                                   | 3               | 1   | 0   | 2   | )   | (9)    |     |     | (9)        | (1.80)      |
|              | (B)       | (4)                              | (4)                     | 1                                   | 3               | 0   | 0   | NA) | (4) | (1.00) |     |     | (4)        | (1.00)      |
| U4           | JS 1      | 6                                | 5                       | W                                   | 5               | 3   | 3   | 3   |     |        |     |     | 14         | 2.80        |
| U5           | JS2       | 5                                | 5                       | 5                                   | 20              | 2   | 0   | 3   | 2   |        |     |     | 32         | 6.40        |
| U6           | JS 1      | 6                                | 4                       | 0                                   | 2               | 1   | X   | 5   | X   |        |     |     | 8          | 2.00        |
| U7           | JS 1      | 6                                | 5                       | 0                                   | 3               | 2   | 5   | 2   | X   |        |     |     | 12         | 2.40        |
| U8           | JS 2      | 6                                | 4                       | 5                                   | 1               | 5   | X   | 3   | X   |        |     |     | 14         | 3.50        |
| <b>Total</b> | <b>8</b>  | <b>49</b>                        | <b>42</b>               |                                     |                 |     |     |     |     |        |     |     | <b>128</b> | <b>3.37</b> |
| <b>Grand</b> |           |                                  |                         |                                     |                 |     |     |     |     |        |     |     |            |             |
| <b>Total</b> | <b>12</b> | <b>71</b>                        | <b>60</b>               |                                     |                 |     |     |     |     |        |     |     | <b>191</b> | <b>3.18</b> |

Key : W. Worship

- O = No Time Wasted
- ← = Double Period
- X = No Teacher, no instructions
- (A) = Shift School (A – Morning Shift)
- (B) = (B – Afternoon Shift)

## Appendix L

### Total Official Break Time and Actual Break Time

| Type of School | Class                              | Official Break Time in Minutes |                 |        | Actual Break Time Used |                 |       | Diff. Bet. Official & Actual Time |
|----------------|------------------------------------|--------------------------------|-----------------|--------|------------------------|-----------------|-------|-----------------------------------|
|                |                                    | 1 <sup>st</sup>                | 2 <sup>nd</sup> | Total  | 1 <sup>st</sup>        | 2 <sup>nd</sup> | Total |                                   |
| R1             | JS1                                | 15                             | 20              | 35     | 14                     | 19              | 33    | +2                                |
| R2             | JS2                                | 25                             | 10              | 35     | 25                     | 10              | 35    | 0                                 |
| R3             | JS1                                | 25                             | 20              | 45     | 23                     | 20              | 43    | +2                                |
| R4             | JS2                                | 25                             | 10              | 35     | 25                     | 10              | 35    | 0                                 |
| Total          | 4                                  | 90                             | 60              | 150    | 87                     | 59              | 146   | +4                                |
| Average        | -                                  | 22.5                           | 15.0            | 37.5   | 21.75                  | 14.75           | 36.5  | +1                                |
| U1             | JS2                                | 25                             | 10              | 35     | 24                     | 10              | 34    | +1                                |
| U2             | JS2                                | 15                             | 30              | 45     | 19                     | 32              | 51    | -6                                |
| U3             | JS1( <sup>A</sup> / <sub>B</sub> ) | 45(30/15)                      | NA              | 45     | 53(35/18)              | NA              | 53    | -8(-5/-3)                         |
| U4             | JS!                                | 25                             | 10              | 35     | 24                     | 10              | 34    | +1                                |
| U5             | JS2                                | 25                             | 10              | 35     | 20                     | 8               | 28    | +7                                |
| U6             | JS1                                | 20                             | 10              | 30     | 20                     | 10              | 30    | 0                                 |
| U7             | JS1                                | 25                             | 10              | 35     | 25                     | 10              | 35    | 0                                 |
| U8             | JS2                                | 25                             | 10              | 35     | 23                     | 10              | 33    | +2                                |
| Total          | 8                                  | 205                            | 90              | 295    | 208                    | 90              | 298   | -3                                |
| Average        |                                    | 25.625                         | 12.857          | 36.875 | 26.0                   | 12.857          | 37.25 | -0.27                             |
| G. Total       | 12                                 | 295                            | 150             | 445    | 295                    | 149             | 444   | +1                                |
| Average        |                                    | 24.58                          | 13.64           | 37.08  | 24.58                  | 13.55           | 37.0  | +0.125                            |

Key + sign = Time spent below or less than official duration of break time

- sign = Time spent above or more than the official duration of break time

NA = Not Applicable

Appendix M

Total Number of Subjects Taught or Not Taught Per Day

| Type of School | Class                | Number of Expected Sub. To be Taught | Number of Sub. Taught (Observed) | %     | Number of sub. Not taught (observed) | %    |
|----------------|----------------------|--------------------------------------|----------------------------------|-------|--------------------------------------|------|
| R1             | JS1                  | 5                                    | 4                                | 80    | 1                                    | 20.0 |
| R2             | JS2                  | 6                                    | 4                                | 66.7  | 2                                    | 33.3 |
| R3             | JS1                  | 5                                    | 5                                | 100.0 | 0                                    | 0    |
| R4             | JS2                  | 6                                    | 4                                | 66.7  | 2                                    | 33.3 |
| Total          | 4                    | 22                                   | 17                               | 77.3  | 5                                    | 22.7 |
| Average        | -                    | 5.50                                 | 4.25                             |       | 1.25                                 |      |
| U1             | JS2                  | 6                                    | 6                                | 100.0 | 0                                    | 0    |
| U2             | JS2                  | 5                                    | 4                                | 80.0  | 1                                    | 20.0 |
| U3             | JS1 <sup>(A/B)</sup> | 9 <sup>(5/4)</sup>                   | 9 <sup>(5/4)</sup>               | 100.0 | 0                                    | 0    |
| U4             | JS1                  | 6                                    | 5                                | 83.3  | 1                                    | 16.7 |
| U5             | JS2                  | 5                                    | 5                                | 100.0 | 0                                    | 0    |
| U6             | JS1                  | 6                                    | 4                                | 66.7  | 2                                    | 33.3 |
| U7             | JS1                  | 6                                    | 5                                | 83.3  | 1                                    | 16.7 |
| U8             | JS2                  | 6                                    | 4                                | 66.7  | 2                                    | 33.3 |
| Total          | 8                    | 49                                   | 42                               | 85.7  | 7                                    |      |
| Average        |                      | 6.13                                 | 5.25                             |       | 0.88                                 | 14.3 |
| G. Total       | 12                   | 71                                   | 59                               | 83.1  | 12                                   |      |
| Average        |                      | 5.92                                 | 4.92                             |       | 1.00                                 | 16.9 |

Key <sup>(A/B)</sup> = Shift School (A = Morning Shift)  
(B = Afternoon Shift)



## Appendix N

### Total Instructional Time Used or Wasted in the Observed Classes

| Type of School | Class                | Total Official Time | Total Actual Time Used | %     | Total Time Wasted | %     |
|----------------|----------------------|---------------------|------------------------|-------|-------------------|-------|
| R1             | JS1                  | 315                 | 252                    | 80.00 | 63                | 20.00 |
| R2             | JS2                  | 315                 | 249                    | 79.05 | 66                | 20.95 |
| R3             | JS1                  | 315                 | 299                    | 94.92 | 16                | 5.08  |
| R4             | JS2                  | 315                 | 207                    | 65.92 | 108               | 34.29 |
| Total          | 4                    | 1260                | 1007                   | 79.92 | 253               | 20.08 |
| Average        | -                    | 315                 | 251.75                 |       | 63.5              |       |
| U1             | JS2                  | 315                 | 304                    | 96.51 | 11                | 3.49  |
| U2             | JS2                  | 315                 | 214                    | 67.94 | 101               | 32.06 |
| U3             | JS1 <sup>(A/B)</sup> | 510(270/249)        | 459(234/225)           | 90.00 | 51(36/15)         | 10.00 |
| U4             | JS1                  | 315                 | 252                    | 80.00 | 63                | 20.00 |
| U5             | JS2                  | 315                 | 294                    | 93.33 | 21                | 6.67  |
| U6             | JS1                  | 315                 | 246                    | 78.09 | 69                | 21.91 |
| U7             | JS1                  | 315                 | 271                    | 86.03 | 44                | 13.97 |
| U8             | JS2                  | 315                 | 233                    | 73.97 | 82                | 26.03 |
| Total          | 8                    | 2715                | 2273                   | 83.72 | 442               | 16.28 |
| Average        |                      | 339.38              | 284.13                 |       | 55.25             |       |
| G. Total       | 12                   | 3975                | 3280                   | 82.51 | 695               | 17.49 |
| Average        |                      | 331.25              | 273.33                 |       | 57.92             |       |

Key (A/B) = Shift School (A = Morning Shift)  
(B = Afternoon Shift)