TIME RESOURCE MANAGEMENT AND SECONDARY SCHOOL STUDENTS' PERFORMANCE IN TANZANIA: A CASE OF DODOMA REGION

BY

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ABSTRACT

Recent developments in resources management advocate empowerment and responsibilities to stakeholders. Time management in secondary schools depends on school administration, teachers and students. With this reality therefore the relationship between time resource management and students' performance is decisive in educational planning and quality improvement. This study investigated time resource management and its impacts on students' performance. Specifically the study examined the extent to which utilisation of time allocated for teaching and learning has any impact on students' scores. The study involved 28 teachers and 102 Form Three students randomly sampled from nine secondary schools in Dodoma region. The study was conducted by using structured questionnaire as a major tool for data collection. Non participatory observation, in-depth interviews and secondary sources were used to gather supplementary information. The statistical package for social sciences (SPSS) was used to analyse data generated by questionnaires. The study revealed existence of time wastage in schools and positive correlation between wise use of time and negative correlation between misused learning time and students performance. The most important factors determining students' performance encompasses subjects teachers quality, numbers of teachers in schools, learning environment, time spent by teachers and students in learning process per week, students readiness, attendance and distance to school. Students' performance reflected time management levels and practices that prevail in schools. Majority students both in rural and urban schools scored 'C' grades in average followed by 'D' grade scores in National Form Two examinations. The study concludes that there is inadequacy of consciousness on effective time resource utilisation in secondary schools. Abuse of time has negative impact on students' performance. The study recommends that, heads of schools should make sure that school activities are carried out as per schedules. Schools

should periodically evaluate the way spend time located for various activities. Employers should motivate teachers so as to manage well time resource in schools. Teachers' quality should constantly be improved. Schools should also establish a culture of valuing time as none-reversible variable in education, design and adopt better utilisation practices in schools.

DECLARATION

I, **MWABLESS NELSON MALILA,** do hereby declare to the SENATE of Sokoine University of Agriculture that, this dissertation is my own original work and has not been submitted for any degree award in any other University.

Signature: .....

Date: 17/10/2003

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This work is dedicated to my late father Nelson Malila, my mother Tuhingilisia Mbogela and my Uncle Benitto Mbogela who laid the foundation of my education and so many sacrifices for upbringing and educating me.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

DEFINITION OF KEY TERMS

Time management: Time utilisation in hours for academic activities as measured by a chronometer.

Teachers: Employees whose major responsibility is to teach students

Facilities: Number of physical equipment like desks, buildings, electricity, and water supply

Learning environment: School and classroom conditions (ventilation and free from noise, air pollution and the like)

Learning/teaching materials: Number of textbooks, reference books, journals, newspapers and magazine, and availability of laboratory equipment and the like.

Performance: Scores (marks) that students get in their examinations or Gross Point Average (GPA).

Time management for class lessons: Teachers' and students' utilisation of subjects' allotted time for teaching and learning

Time management for laboratory experiments: Teachers' and students' utilisation of subject allotted time for conducting laboratory experiments

Time management for meals: Students' utilisation of time allotted for meals like breakfast and lunch

Time management for morning cleanliness activities: Students' utilisation of time allotted for cleaning school surroundings before morning parade

Time management for school parade: Utilisation of time allotted for morning and afternoon parade or *baraza*

Time management for private studies: Students time use for personal studies as preparation or doing assignments

Readiness (age): Length of time that a person lived in yeas

Attendance: Number of days a teacher or students present and participate in teaching and leaning process

Teachers' quality: Subject content mastery, activeness and participation in teaching and administration, material delivery and marking students' assignments.

School location: Geographical positions of a school either in urban or rural area

Income: Amount of money one receives in a certain period as payment for work

Transport: Daily students and teachers movement from residential areas to schools

Nature of examinations: Typical qualities and characteristics of National examinations

Gender: Male and female individual relationship in schools

Arrangement of activities: The way teachers and students organise and run their daily school activities

Motivation: Cause of want to do something

Nutrition: Taking delicious diet with adequate nutrients that human body requires

Health status: Teacher or students' condition of being well and able to resist or being free from diseases

Parent's education: The level of education attained by students' parents (primary, adult education secondary, tertiary or none)

LIST OF APPENDICES

ACRONYMS

GPA	Gross Point Average
MoEC	Ministry of Education and Culture
P	Probability
SPSS	Statistical Package for Social Science
SRS	Simple Random Sampling
TGNP	Tanzania Gender Networking Programme
TIE	Tanzania Institute of Education
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
URT	United Republic of Tanzania

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the study

In Tanzania, like in many other countries, education follows patterns, which are pre-primary, primary, secondary and tertiary. Secondary education makes the third pattern and is divided into two parts; ordinary level, which covers four years (form I-IV) and advanced level secondary education that, covers two years (form V and VI). This pattern usually enrols students aged between 14-19 years (URT, 1999).

Education is expected to play a significant role in national development as a whole and rural development in particular. It determines the rate or extent of adoption of modern technologies for exploitation and conservation of natural resources, which Tanzania is endowed with. Successful operation of rural projects for poverty reduction and improvement of rural livelihood depends very much among other factors upon individuals' performance in different tasks.

Besides that it was insisted in the World Summit Conference for Sustainable Development, held in Johannesburg September 3, 2002 that, no sustainable development without education, education for sustainable future. Thus education in all its forms and all levels is not only an end in it self but is also one of the most powerful instruments we have for bringing the changes required to achieve sustainable development (UNESCO, 2002).

Low achievement in education is one of the elements constituting poverty both in rural, urban areas and in commercial centres. In Tanzania a range of factors affecting students' academic performance in secondary schools can be identified, such as teacher-student

ratio, facilities, attendance, nature of examinations and so on. Students' poor results in national examinations are one manifestation of inadequate school performance. Results vary by regions as well as districts; students from urban areas achieve higher grades than in rural areas (URT and UNICEF, 1990).

Time is an important variable in any activity, so it is assumed that the more the time are spent in activities the higher the degree of performance and goal achievement. Time, as a resource is an important input in classroom teaching and in learning process. It takes part in students learning and performance (Hudgin, 1971). Like any other resources, time has to be properly managed to meet our intended ends. However, there is inadequate evidence on whether students and teachers do really conceptualise time as an important resource.

Misuse or abuse of time might have negative impacts on students' academic achievements. It has been experienced that time mismanagement/misuse is a common and critical problem in secondary schools, especially government secondary schools. This problem emanates either within or outside schools environments. Time management is very important in educational institutions for ensuring better and effective implementation of curriculum and achievement of educational goals both at institutional and national level. Learning institutions in Tanzania, including secondary schools are very much concerned with methods of improving performance and achieving the intended ends. Activities in educational centres need to be properly planned and organised, employees'' efforts and students' efforts must be directed towards achievements of their institutional objectives. Among other factors, improvement of secondary school students' performance can come through wise use of allotted time for student-teacher interaction.

Organisations (both private and government owned) constantly plan for their survival both in a closed and open systems. Learning institutions like universities, colleges and secondary schools struggle for their survival by having comprehensive plans and implementing programs in a specified time. Consciousness and ability of individuals to utilise fully the time allotted for different activities determine success in such institutions.

Dubrin (1982) argues that work habits and time-management are inseparable. So it is likely that time management of school community members influence students' performance. The way time is being utilised is important in understanding students' performance.

Students' performance is mainly determined by time-management. Time management in secondary schools is influenced by several variables, namely; teachers, their number and capabilities, availability of teaching-learning materials and facilities, school location and environment, income of individual, readiness of individuals, motivation, attendance (presenteeism and absenteeism) of both students and teachers, nature of examinations, gender, nutrition, and individuals health status. Time management is assumed to be the central factor influencing students' performance. Therefore, there is a need to examine the relationship between time management and students' academic performance.

1.2 Problem statement and justification

1.2.1 Problem statement

Students' performance in most of secondary schools (private and government) in Tanzania, both in rural and urban areas, is affected by a number of factors namely low quality facilities, shortage of teaching/learning materials and their use, shortage of

laboratory equipment, low quality of teachers, the way subjects are taught and learned, the nature of syllabus, the degree to which students are motivated to master the contents, and the nature of examinations themselves (Ishumi, 1990; Chonjo and Wellford, 2001). Other factors include, poor library services, lack of teachers, truancy and absenteeism of both teachers and students, drilling and coaching by teachers who are non-teachers and so forth. However all these factors determine the amount of time spent in teaching and learning tasks.

In secondary schools, adequate curriculum time is allotted for teachers to teach and students to learn, however, use of it is assumed to vary among teachers and students and among schools. It is expected that making use of all the allotted time for teachers to teach and students to learn, most of students are supposed to pass their examinations, unfortunately a considerable amount of time seems to be misused, hence over 70% (including division four) form four candidates do not do well in their final examinations (URT, 1999). Major causes being shortage of highly qualified and motivated teachers, lack of teaching-learning materials and shortage of facilities, nature of syllabi and lack of motivation among students (Chonjo and Wellford, 2001).

Students' performance in secondary schools is assumed to relate significantly with their levels of time management. Such an observation strongly suggest a need of undertaking a study which will provide a clear understanding of time management in secondary schools and its consequences on final examinations performance.

1.2.2 Justification of the study

The problem of poor performance among students has existed for quite a long time and still exists. However, despite of its importance, very little has been done about time management in secondary schools. The problem of poor performance is common in all secondary schools and a considerable number of students in such schools are adversely affected.

Time is both social and material, depending on ones perception backed by his or her culture. Thus, people may use it in different ways. The available evidence suggests that students' performance in secondary schools is rather low, for example National Form Four Examination results for the year 2000 and 2001 respectively show that 62.8% and 63.9% passed and 37.2% and 36.1% failed, (Majira, March 14, 2002). In the year 2003, 57,270 candidates (76.9%) passed while 17,185 (23.1%) failed, (Daily News, March 13, 2003). These results call for an investigation as to why a considerable number of students fail in their final examinations.

This research is made more important by the fact that, no comprehensive study has been done to examine location and use of time. An important issue that has not been addressed is how time as a resource is being managed in schools. There is lack of information pertaining the extent of curriculum time utilisation and its impact on students' academic performance.

While a considerable number of Form Four students perform poorly in their final examinations, it is argued that it could be due to time mismanagement to ensure that activities are undertaken systematically as planned.

This study therefore examines how time is managed by students and teachers and its relationship with students' performance. The study generates information on curriculum time and private time utilisation among students and its relationship with students' academic performance. Generation of such information is critical and highly needed by Tanzania Institute of Education (TIE), the Ministry of Education and Culture and educational officers for designing effectively curriculum packages, instructional programmes as well as for reviewing educational management techniques.

1.2.3 Significance of the study

The research results or information may be helpful to policy makers, curriculum developers, heads of secondary schools/school managers, Regional and District Education Officers, teachers and students on the whole aspect of time management in teaching learning process before summative evaluation, that is before the end of programme evaluation, particularly O-Levels and A-levels.

Also the findings may create awareness to students and teachers in such a way that they design and adopt proper classroom management strategies to utilise efficiently instructional/students learning allotted time and private time as well. Thus let them become more time conscious, using it more carefully. Teachers and students as time managers could value time as an important resource in educational system by planning and scheduling activities against it in their day-to-day responsibilities.

1.3 Objectives

1.3.1 General Objective

The study intended to investigate time resource management in five government and four private secondary schools in Dodoma Region and its impact on student's performance so as to understand how best can time be utilised in order to improve students' performance.

1.3.2 Specific Objectives

Specifically the study intended to:

(a) Examine the extent to which utilisation of time allotted for teaching-learning has any impact on students' scores/grades

(b) Investigate the effects of gender in time management and performance among students.

(c) Examine whether utilisation of allotted learning time for non-academic activities has any impact on students' scores/grades

(d) Establish the relationship between time management and students' academic Performance

(e) Compare time management and performance among students who study in urban schools and those in schools located in rural areas

1.4 The conceptual Framework

This study assumes that students' performance may be explained by independent variables namely time allotted and spent in class lessons, laboratory experiments, meals, cleanliness, school *baraza* / meetings, extra school curriculum activities and private studies; number of teachers in a school, school facilities, learning environment, student readiness, materials and attendance determine time management in various academic activities and directly impact student performance. Further more school location, students family income, transport, nature of examinations, students sex, arrangement of activities, nutrition, students health status and parents' education are likely to influence time management and hence indirectly determine performance.

Thus the degree of students' performance is predicted to be determined by interplay of background variables and independent variables. This means that the amount of time spent in teaching and learning process and eventually performance is influenced by a series of factors mentioned above.

Indeed it is true that such factors vary from one school to another, and this may result into variation of time spent in teaching and learning tasks, which in turn determine content coverage and mastery.

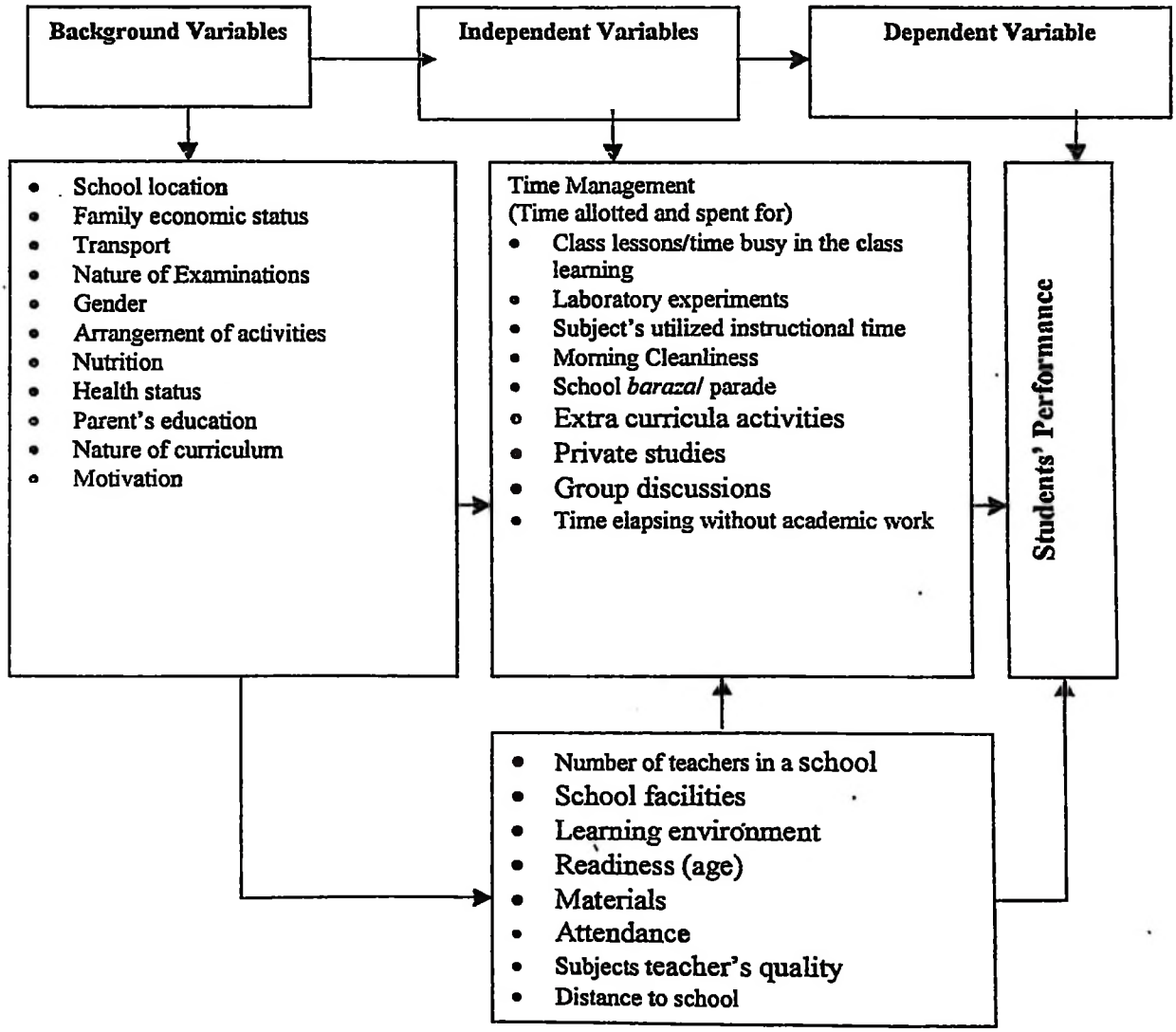

Fig1: Conceptual framework of time management and students' performance.

1.5 Research questions

The study examined how students and teachers utilise time allotted for studies and how they utilise the 24 hours of a day. The following are research questions:

(a) Is time allotted for students to learn/teachers to teach fully utilised for that purpose?

(b) What level of time management exists in the schools and among students and teachers?

(c) Is there any relationship between utilised instructional time and students' performance?

(d) Does time management differ by gender in schools? How does this relate with students' performance?

(e) Does students' involvement in non-academic activities influence their performance?

(f) Does time management behaviours/levels and students' performance differ by school location?

1.6 Research hypotheses

In order to determine utilisation time resource by teachers and students and its association with students' performance the following hypotheses were tested.

Null (Ho) hypotheses

(a) There is no variation in time utilisation among secondary schools students and among schools

(b) There is no significant difference on the effect of gender in time management and performance among students

(c) There is no relationship between time resource utilisation and student scores/grades

(d) There is no significant difference in time management and performance between students who study in urban schools and those in schools located in rural areas.

Alternative (Ha) hypotheses

(a) There is variation in time utilisation among secondary schools students and among schools

(b) There is significant difference on the effect of gender in time management and performance among students

(c) There is relationship between time resource utilisation and student scores/grades

(d) There is significant difference in time management and performance between students who study in urban schools and those in schools located in rural areas.

1.7 Study limitations

The study had three major limitations. First there might have been suspicion among respondents to questionnaires. This could result in false information. However this was checked by group discussion held to yield same information.

Second, in some schools it was difficult to administer questionnaires and conduct group discussion at the time located, instead they were done according to respondent's convenience time. For instance in schools 107 and 109 questionnaires for students and group discussion were held during evening preparation time. However the situation was tolerated and required data were successfully obtained.

Third, Some respondents-teachers demanded payment for filling in the questionnaires. However having a short questionnaire, they were convinced to fill them in with the promise that they get feedback of what they have done.

1.8 Study Delimitation

The study was conducted in only nine secondary schools in Dodoma region. Therefore, since only a few schools were involved in this study, findings may in one way or another not be generalisable to the whole country.

CHAPTER TWO

2.0 LITERATURE REVIEW

Time management pattern in developing countries varies substantially across institutions to household levels (Bedi and Marshal, 1999). Such institutions include Ministries, Higher learning Institutions, Colleges, Hospitals, Dispensaries, Municipals and District councils as well as schools. To achieve the intended ends (objectives) there is a continuous need of managing activities against time or vice versa. Among other factors, improvement of secondary school students' performance can come through wise use of allotted time for student-teacher interaction.

Learning institutions in Tanzania, including secondary schools are very much getting concern with methods of improving work performance and achieving the intended ends. Activities in educational centres need to be properly planned and organised, employees' and students' efforts must be directed towards achievements of their institutional objectives (Chediel, 1993).

A significant number of government and private secondary schools in Tanzania perhaps are academically adversely affected by time misuse. In Dodoma region, secondary school students' performance differs greatly due to various reasons.

Thus it can be argued that objectives of secondary school education in Tanzania are not attained as required.

Such objectives according the Ministry of Education and culture (1997) are:

(a) Consolidate and broaden the scope of baseline ideas, knowledge, skills and principles acquired and developed at primary education levels.

(b) Enhance further development and appreciation of national unity identity and ethnic personal integrity, respect for and readiness to work, human rights, cultural and moral values, customs, traditions and civic responsibilities and obligations.

1. Promote the development of competency in linguistic ability and effective use of communication skills in Kiswahili and in at least one foreign language
2. Provide opportunities for the acquisition of knowledge, skills, attitudes and understanding in selected fields of study.
3. Prepare students to tertiary and higher education, vocational technical and professional.
4. Inculcate a sense and ability of self-study, self-confidence and self-advancement in new frontiers of science and technology academic and occupational knowledge and skills.
5. Prepare the students to join the world of work.

Although these objectives cut across all secondary schools in Tanzania, the subjects taught differ in content, lengths of time, teaching approaches, and teachers' experiences also differ. Thus allotted time is assumed to be enough for each subject's content, though its utilisation may vary depending on the nature of the subject.

2.1 The Concept Time

Time is among the aspects in modernisation process. According to Luichu (1999) time is usually conceived as an environment in which social conduct is enacted. It is natural dimension of all occurrences and events. The sequential nature, repetition or change of social system expresses objectivity time. Also time reveals itself as an irreversible arrow.

The past exists in archives and our recollections, the present lives in direct experiences and the future in our imagination or inspiration.

Time is one of the deepest mysteries, it is actually difficult to say precisely what is it, ability to measure it marks our way of life possible, many human activities involve groups of people acting together in the same place at the same time.

Cultural perceptions of time differ from one society or organisation to another. In American and European cultures, time seems to be a simple matter. It is linear, relentlessly marching forward, never backward in standardised chunks, to others who received watches for their birthdays, time is like money. It is spent, saved or wasted, (Kreitner and Knicki, 1992). Therefore time is wealth, it is a commodity, which can be, spend or exchanged for something of equal or greater value to us.

However like all wealth it can also be misspent. It can be used up in rushing after this or that distraction, which generally in our complaining that there is no enough time to do all the things we want to do. It is a complete fallacy to say those never have enough time. Fault lies in our lack of method in making use of what time we have. One can theorise in a simple way that if 40 minutes lost in a day, 200 minutes will get lost in a week and 800 in a month and so on.

Basing on their perceptions Americans are thought to show up 10 minutes early for appointments (Kreitner and Kinicki, 1992). What about Africans? especially Tanzanians? For how long early or late do they show for appointment? For meetings? For teaching? For office work? When working across cultures, however time becomes a very complex matter. In African context, specifically in our country Tanzania one can be left at a bench, room or place for quite a long time for a government official dealing with particular issue.

People of different cultures experience time differently, construct their social times by organising the setting of their interactions as their field of conduct, drawing upon its features in order to warrant and regulate what they do. Different actors exploit, utilise and express their culturally shared and historically specific conception of time to co-ordinate their activities. It is through this analytical eye/lens we can see how time in our common sense is ordinarily understood and measured through events, occurrences and schedules (Kreitner and Knicki, 1992; Lui chu, 1999). This reveals that time utilisation is one of the major problems that people face in our societies. Thus calling for studies that may describe time utilisation in relation to job performance.

2.2 Different uses of time in broad categories

Time as resource can be spent in different activities or can just be wasted. Backer (1965) argues that throughout history the amount of time spent at work has never consistently been much greater than that spent at other activities. So much time is spent in non-productive activities. Specifically time is mainly used in the following ways:

Production (Agriculture, manufacturing, mining, fishing home chores, processing goods, Social activities (entertainment, sports and games learning/teaching, charting, prayers, health care), Politically (Exercising power, influencing people, making important decisions in conferences). Discoveries and inventions for example experimentation for scientific investigations; Change location of goods, services, the like and ourselves.

2.3 Time management

Time management can be referred to as the process of maximising the potential of time resource and co-ordinating activities to attain some potential goals (Kinard, 1988). It is a

process of getting things done as planned to achieve intended objectives. It includes making schedules, making time estimates and establishing priorities.

Time management Problem like other management problems, arise from the fact that schools deal with groups. To ensure an effective environment for education of the group it becomes the central problem of management, hence things like daily activities, routine and timetable come in. Such things when are systematic and followed, prevent wastage once are not interfered (Monroe, 1991). Kerr Mary and Nelson (1983) argue that time management is one of the aspects to be considered in designing conducive and effective learning environment, making students more active and responsible learners.

2.3.1 Time management in organisations

Time management in organisations (both private and government) is an important issue, because all activities are time bound. If time cannot be managed nothing else can be managed as well, and one can't be effective at work if is not controlling his/her time (Duncker, 1967; Mackenzie, 1981).

A part from that importance of time management, employees in organisations use time in different ways. The four major ways in which office hours are utilised are; when an employee is at work and engages in official tasks; when an employee is absent but his/her time of work is counted present as he/she may be doing official work at home; an employee may be physically present but not engaged in official tasks, and lastly an employee may completely be absent from work place without or with notice (Agbonifoh and Inegberebor, 1985). People including employees are time consumers, if they don't save it they spend or waste it. Misuse of work hours may be in the form of idle time, rest

period and charting. Out of 8 official work hours a considerable amount of time may waste because of such factors.

It may be true that employees in Tanzania government secondary schools are misusing time by either resting, charting or involving in their personal dealings to an extent that teaching- learning process is affected. The study of time management intends to identify causes of time misuse in government secondary schools.

2.3.2 Time management in educational context (Time and Learning)

Time has become a most significant factor in the life of the teacher and students. They must learn how to adopt the instructional demands of the day to the available time, since instructional time is a precious commodity, slips away when unanswered questions are asked (Hudgin, 1971). In that light then educationists are increasingly discovering the significance and impact of time as a variable in educational process.

In Marx's philosophy, time is regarded as a commodity, guiding principle of capitalist (Moore, 1963). The explanation to this is that every commodity including labour power is the objection of a given amount of labour time. The socially necessary labour-time governs the value of commodities and is the standard measure of exchange value. Units of time are the ones, which make the value of commodities divisible and quantifiable.

Its complexity has been expressed by Power (1980) as cited by Hussen and Postletwaite (1985) by stating that, time is the coin of the realm in education, education is a process which takes time, and which can and does occur at points in time. It is what teacher must give if they are to make students learn it is also what learners must spend if they are to buy the education they want.

In general sense, it is always appreciated in educational planning and administration that, to what extent questions of timing, time-tabling and so on influence the content of education? The content of secondary school studies syllabuses presented is very large to cover it, thus allotted time should be adequately used.

Inadequacies of teachers and existence of poorly motivated teachers reflect under use and misuse of allotted time and partial curriculum coverage and hence poor performance. In secondary schools a multitude of activities when un-carefully programmed eat away curriculum time, for instance absence of teachers, ad hock meetings, home activities especially for day students, gardening fetching water and so forth.

Jackson (1977) as cited by Hussen and Postlethwaite (1985) argues that, time is valueless, may be the culprit suspected to be in schools. But it acquires value chiefly because it marks the expenditure of a precious commodity, human life.

This means time, as a resource should be carefully utilised. But the question comes, besides this fact how do people programme their work? Are there carefully planned schedules? If are there do people follow them? These are essential not only to ensure that syllabuses are systematically covered but also enable a student and teacher to plan coherently his/her time and activities.

Programmed instructions which schools have to have them are believed to make an outstanding contribution in content coverage and improved performance. Programmed schemes of progressive studies tend to enable students to mature in knowledge and character in the manner best suited to their need's ability and personality.

In classes of students varying in number there are great variations in "Known" to start with when (teachers teach) and "Unknown" to end up with; or "simple" to "difficulties" or "Concrete" to the "abstract". Because of this dilemma then teaching–learning process may have unclear directions. Thus with programmed instructions basing on fully utilisation of allotted time ensures that each student starts from precisely what he/she knows and proceeds at his or her own best pace to a clear cut objective. While on the other hand the individual nature of programmed learning basing on time management enables teachers to accelerate the process of the highly gifted, maintain the steady progress of the average and at the same time be certain that the less able students progress without frustration to an objective commensurate with their individual ability.

The rationale behind sound teaching–learning programmes in secondary school encompasses; definite clear cut objectives are stated and achieved, students are in a position to get current answers without many difficulties, as morale is constantly maintained, all irrelevancies are easily stripped from the programmes, Outstanding points are emphasised.

2.3.3 Time-management by teachers and students

The operation of routine is the best indicator of time utilisation in schools for teachers and students, each group having specific tasks to perform at a specified time.

Essentially the teacher's time perspective is determined by the way he/she conceives the nature of teaching - learning process in his/her subjects of specialisation. Any conception of change through teaching – learning process involves a time perspective, that time must be seriously viewed as far as teaching – learning process is concern, so as to judge the intended ends (Sarason, 1971).

In addition to that Hudgin (1971) argues that time management behaviour among teachers base on prioritising for events with respect to the sequence in which they occur or not occur, including teaching. So teachers as time managers in schools have to plan for time utilisation for a day, week, month and even a year. Their activity schedules (teachers plans) mean a lot in time management, the sequence of events in schools is an explanation of efficient use of time.

The German Foundation for International Development (1995) reports that a teacher as a planner and manager of time must develop skills to plan and manage his/her time. The teacher has to plan his/her day, his/her week and entire academic year so that to accomplish all the work.

Teachers need time to prepare lessons, to teach, supervise students, mark and grade examination papers, attend meeting and conferences. All these tasks have to be undertaken along with other commitments at home and in the community. Failure to that they fall into misusing time. Thus in planning their time they should take into account the relative importance of tasks, sequence in which they should be done and their capacity to cope with them.

Ball (1983) argues that if teachers have no desire to devote their time to learners, no curriculum package will have any lasting impact because it is what teachers provide and what learners spend in order to learn. This places teachers centrally in the curriculum time management. It denotes that, teachers' behaviour in classroom, as well as outside classrooms is an important aspect as far as time management in school, especially classroom is concerned.

Teachers' behaviours are associated with students work involvement. Besides that they are related to managerial success in the classroom, in terms of their ability to create a conducive environment of work, involvement in such a way that it maximises learners (students) engaged time in learning tasks (Bloom, 1974).

Student's time consciousness is determined by the way they understand the nature of learning in different pursued subjects. Indeed, these students depending on their age and hobbies, have many demands. Mercer and Mercer (1989) strongly argue that considering the many demands placed on secondary school students to complete tasks at specific times and participate in a host of competing activities like being with peers, joining clubs, watching television, listening to music, and the like, it is apparent that time management is critical to surviving in secondary school setting.

Depending on ones school or home environment, students use time in different ways, hence their time management behaviour is shaped by their family status and school environment. Because of environmental and cultural differences in perceiving what time is, it is true that not all schools, not all actors, not all students and others in school communities are time conscious, for some, time is stood still. Advancing in time is not a linear process to take the right posture in negotiating with other actors, school managers, or heads also have to manage their time carefully. Otherwise students like every body else manage their time poorly (Robbins, 1991).

2.4 Students time allocation

Different institutions, curriculum-planning unit, school administration, parents and other close relatives, and partly students themselves do student's time allocation in different activities. In Tanzania, curriculum time is allocated by Tanzania Institute of Education,

which basing on the subject content, carefully estimates distribution of instructional time per year in terms of days per week and hours per subject. For this instructional time per subject, teachers are control variables by employing their teaching strategies at the right place and time to make effective learning (Anderson, 1987).

Hill (1965) argues for balanced time utilisation in schools, by suggesting that in schools there should be programme priorities, protection of core functions by defining time, and planning using students' time. So teachers and students have to balance their 24 hours time in their day-to-day activities. School administration allocates time for different activities according to routine of a day and prevailing environment, which sometimes may change activities of a day. Parents as well, depending on their socio-economic status, education and season of a year tend to locate time for students home activities differently depending on their priority. For example farms work first then schooling, or schooling first then domestic chores, and so on.

Students themselves, depending on the age, gender, interests, educational level, socio-economic status, locate and use their 24 hours of a day in different ways; Mercer and Mercer (1989) add that students, especially those at adolescent age, locate time for being with peers, involving in club activities, watching television, listening to music, driving cars, involving in sports and games, cooking and other home activities, learning, praying etc. Thus it can be concluded that the amount of time to be spent in a particular activity depends on the priority of a decision-maker for time use and the number of activities to be performed.

2.5 Gender aspect of time management and performance

Socialisation is the most central and most distinctive function of the family (Reiss, 1965; Konig, 1974) as cited Stebbins (1987). This means that it is a society, which socializes people men and women, boys and girls and all children. But Hulme and Turner (1990) state that the same society socialises girls into faciality, inferiority and indebtedness discriminated against in schooling and skills. It has been observed that in rural schools, where there are no hostels, girls leaving in unregulated environment are adversely affected in terms of their school achievement, perhaps because the environment forces them to locate little time for private studies.

The United Republic of Tanzania and UNICEF (1990) report that, while women have information, however, they usually do not control essential resources, which are needed for effective action. These resources include most important their own time perhaps for different activities like studies for the case of students. Actions that need more of a woman's time are constrained by the demands for their time in activities like domestic chores and production.

Involvement of girls in household work tend to free other members of the household to go and do their things like earning money, skills and information (TGNP, 1993). Thus women time is interrupted by a series of responsibilities paused to them by the society, they have little time to do things of their own compared to men. Such a situation negatively impacts student girls' performance compared to boys.

Basing on responsibilities one would argue that unlike girls, boys have fewer responsibilities compared to girls. Hence locate ample time per every activity of a day.

That is why boys tend to perform better than girls in schools; however, availability of school facilities is an important factor in determining levels of participation by both boys and girls.

TGNP (1993) insists that, day school girls tend to perform much lower than boys. Boys and girls from disadvantaged areas perform less well than those from educationally developed ones. This is due to variation in access to educational resources coupled with ample study time.

It has been further observed that girl's performance is lower at all levels nearly in all subjects (TGNP, 1983). Influencing factors are low expectations and their dream demolished by society, fewer resources in schools (lower quality of education) and gender typing, girls perceive mathematics, science subjects and technical subjects as masculine, inappropriate for them as flowers and queens. But above all, this time- management becomes the key issue in student's performance

King and Anne Hill (1993) argue for the place of family in educational achievement. That although culture and the economy have a critical role in determining educational levels, the family (and household) bears the ultimate responsibility for educating its children.

Parents own education and family size, family education and wealth describe economic status of a household. Family income influences parents decision, parents education and occupation positively influence female participation in schooling, and for family size it has been found that in large families children, especially girls, receive less individual attention and other resources from parents than children in small families do. So there is negative correlation between family size, family education and students educational performance. Thus children in small families perform better than those in large families, as

encouragement is low in large families and high in small families. Similar to that, student in well off families, which in most cases are small, are given enough time for their own activities including study time, however more time is to boys than girls.

Gender division of labour at household level is a major cause of low school and examination performance among girls in secondary schools. After school, boys are allowed to concentrate on their studies, while girls help to do household chores. That is why girls tend to perform better in boarding schools. Thus the problem rests partly in household, family and community not solely in education sector itself (TGNP, 1993). Because in most societies girls are still expected to do more work in the house, and therefore have less time for school work than boys have (Bukh, 1979).

2.6 Performance

Performance refers to level at which a person or animal performs a particular task (Robbins, 1991). The degree of accomplishment of task that an individual is assigned. It is a measure of level of achievement for the given duties and responsibilities (Byars, 1987). For instance students who exert a great deal of effort in preparing for examination and make poor grades are said to have poor/low performance. However sometimes, it refers to the extent at which organisations meet their objectives.

Kast and Rosenzweig (1974) point out that many difficulties are involved in measuring the performance of organisations, since they have several goals and typically employ multiple criteria in measuring them. Business organisations evaluate it in terms of profits, return on investment, sales volume, market share, satisfaction of customers, well being and development of employees etc. Learning Institutions may measure performance in terms of

output of skilful students, service provided to the community and so forth. However, performance measurement involves both effectiveness (the degree at which goals are accomplished) and efficiency (the use of resources in attaining goals) and in most cases effectiveness and efficiency are related. It is possible to find an organisation, which is effective in accomplishing goals, but may not be efficient in utilisation of resources. Thus organisations need to evaluate their performance in broad system, which puts into account each major subsystem, say goal setting, effective utilisation of technology, creation of appropriate structure, meeting psychosocial needs and developing managerial system (Ibid, 1974).

Performance in any organisation is determined by individual's effort as modified by abilities and role (task) perceptions. That means performance is a result of interrelationships of efforts, abilities and role perception. This shows that if employees say teachers and students put more effort and have excellent abilities but lacking a good understanding of their roles (tasks), performance will probably not be good in the eyes of evaluators. Much will be done but will be misdirected. Also if employees (like teachers) and students put more effort and understand the tasks but lack ability, probably will rate low on performance. Like wise individuals with abilities and who understand the task (role) but are lazy and expend little effort, their performance will also be poor. Measuring or evaluating performance is a major concern of managerial systems, which are assigned with planning and control functions.

2.7 Other studies on time management and students' performance

The surveys of literature show that no major studies have been done on time- management and students' performance in Tanzania secondary schools. However related studies conducted in other countries are relevant to this study.

Somerset (1968) studied about predicting success in school certificate in Uganda, he found that secondary schools selection examinations were inefficient, and it makes difficult to identify with sufficient accuracy students who can perform well in school certificate four years after joining secondary school studies.

Bedi and Marshall (1999) studied about school attendance and students achievement in Rural Hondurus, they examined low school attendance and low school academic achievement. They found that the strongest factor associated with student academic achievement was teacher quality.

The low or poor performances of secondary school students in Tanzania has been documented on by many authors but very few studies have sought to explain how time as a resource that contributes or influences student learning and performance between private and government schools, boarding and day schools, co-education schools and single sex schools, between rural and urban schools and between female and male students.

Also despite of considerable literature on students' performance, few attempts have been made to study the place of time in teaching – learning process among secondary school students in Tanzania. This study seeks to fill in the gap in the literature by investigating how allotted time for teaching – learning process is utilised and its relationship with students' performance.

2.8 Synthesis of the literature review

This section summarises main issues raised, and indicates lessons learnt in the surveyed literature. The review of literature covers major issues of time resource management in various organisations including secondary schools. Such issues include; the concept time as perceived by different communities, uses of time in broad categories, time resource management and its significance in education, student time allocation in schools, gender aspects in time management and student examination performance as well as the concept performance and its determining factors. There is little information available on the position of time management on students' examination performance. This study attempts to describe the place of time perishable resource in teaching-learning process among secondary school students in Dodoma, Tanzania.

The following lessons have been learnt through reviewing the literature. Time management pattern is not uniform, it varies across individuals, households and institutions. Conceptualisation of time resource as an irreversible and perishable variable is environmentally, culturally based, hence its perception differs from one society to another, and this makes time a more complex matter. Time like any other resource is wealth, it is a commodity that could be spent or wasted. Depending on ones home and school environment, students and teachers use time in different ways, thus family status and school environment shapes teachers and students time management behaviours.

Failures in effective utilisation of time lie in our lack of appropriate techniques in making use of available time. Time construction and utilisation of social time is one of the major problems experienced in our societies, for so many times people show up late for

appointments, for meetings, for teaching for office work and for meeting dead lines, this is not good, people have to reverse this behaviour.

Time resource has different uses, for production activities, social activities, and the like. Effective time utilisation, can be done by proper activity against time planning and sticking to the plans in our day to day activities, this facilitates both individuals and organisational goals achievements.

Time is the most significant factor in the life of teachers and students, interacting together in the process of learning. So time can be regarded as coin of the realm in education, since education is a process which takes time and occurs at points in time. It is something that teachers must give to make students learn, and is also what learners must spend if at all they are to acquire education they want. Teachers and students fully utilisation of allotted time make them cover the syllabus prior to summative evaluation. Time management behaviour among teachers and students base on prioritising for events with respect to the sequence in which they occur or not occur, including teaching/learning. The extents to which teachers and students spend time for learning influence students' content mastery and ultimately their performance. Student examination performance is determined by a series of factors, and is a result of interrelationship of ones efforts, ability, role perception, and effective time utilisation.

Women usually face a problem of controlling essential resources, including their own time for different activities, such as studying for female students. More women's time is interrupted and constrained by demands for their time for domestic chores. Women have

little time to do things of their own compared to men, hence affected in examination performance.

Although enough time is located for subject teachers to teach and students to learn, a number of factors may limit its effective utilisation, and negatively impact students performance. Thus there is a need however to ensure that time is wisely utilised in schools. Doing otherwise may enhance persistence of time resource abuse that prevails in secondary schools. It is important that basic data are obtained on the causes of time misuse in secondary schools and its impact on students' academic performance exemplified.

The extrapolation of data from education colleges and higher learning institutions is of limited applications and therefore there is a need to undertake basic research in secondary schools. The basic research information could provide guidelines for decision making and educational planning to select suitable and appropriate methods of improving the state of education. This type of information is necessary prior to implementing any scheme or program envisaged for up bringing the quality of education in Tanzania.

The elucidation of significant instructional time wastage which occurs due to absenteeism an poor activity planning in schools, and quantification of such perishable resource are both quite important if schools and students in Tanzania are to be assisted in turning from undervaluing and misusing time into preciously valuing and effectively utilising, and on which good performance can be improved and sustained over long term.

The principal objective of this study, is to narrow the knowledge gap by obtaining basic information on relationship between time management and students' examination performance.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study location and its characteristics

3.1.1 Location

The study was carried out in Dodoma region that lies at 004^0-007^0 south and 035^0-037^0 east, and is centrally positioned in Tanzania. In the north is bordered by Arusha region, in the east by Morogoro region, in the south by Iringa region and in the west by Singida region (URT, 1997). The study focused on secondary schools in this region because it is one of the regions in Tanzania having few secondary schools and whose performance is also low.

3.1.2 Characteristics

Administrative units

Dodoma region has five districts, Dodoma, Mpwapwa, Kondoa, Kongwa and Dodoma municipality. The region is centrally positioned in the country and is 12^{th} largest covering an area of 41 310 square kilometres (URT, 1997).

Physical features

Dodoma is generally a plateau dissected by a series of mountain chains that rise gradually from 830 to 2 000 meters above mean sea level. The region is extensively covered by "bush" or thickets type of vegetation. Most of the hill ranges, steep slopes, and protected forest reserves are covered with large wood plants which form good watershed protective covers (URT, 1997).

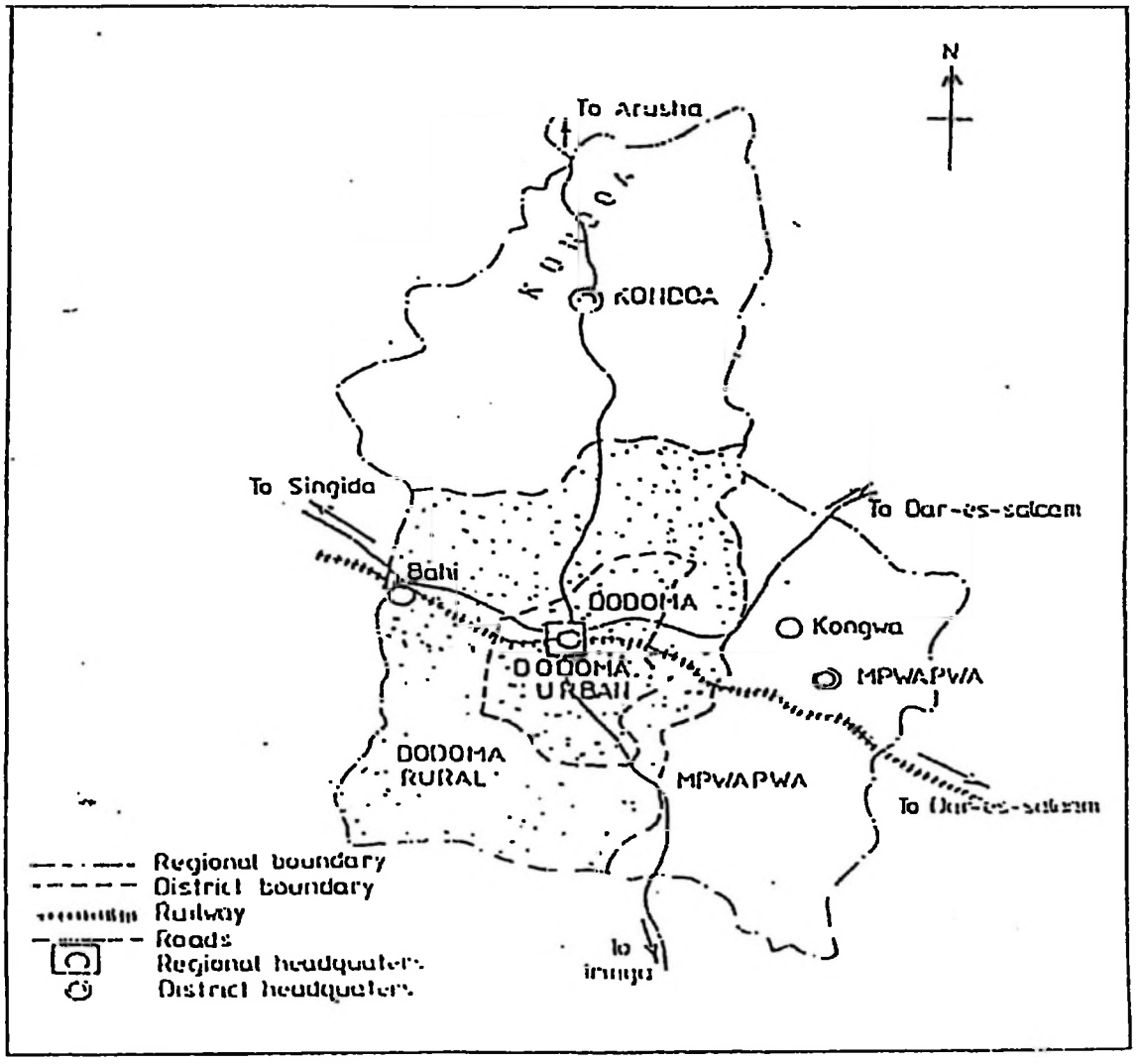

Figure 2: Map of Dodoma region: District boundaries

Source: Capital Development Authority (1976)

Climatic condition for Dodoma region is dominantly savannah type featured by seasonal and unreliable rainfall with long dry spell from late April to early December and short single wet season from early December to late April. The average rainfall ranges from 400mm to 900mm throughout the region, falling between December and March. The temperature ranges between 10^0 and 35^0 varying according to altitude and season of the year (URT, 1997).

Population

Bantu speaking people, major ethnic groups being *Wagogo, Warangi, Wanguu, Wazigua, Wakaguru* and *Wasagara,* mainly inhabits the region. Other ethnic groups include *Masai, Wafyomi, Wambulu, Watatoga* and *Wasandawe*. Also Dodoma region is inhabited by ethnic groups from different parts of the country, namely Indians, Arabs, Somalis and Chagga who are found in urban and other rural trading centres. The region is estimated to have over 1 640 000 people, 89.4 percent live in rural areas, the rest in municipality and district towns. The population density is 30 persons per square kilometre (URT, 1997).

Economy

Dodoma region is among the least developed regions in the country. Agriculture (crop-production and animal husbandry) is a major economic activity. Staples gown are mainly maize, millet and sorghum. Other crops include groundnuts, sunflowers, cassava, sweet potatoes, paddy and grapes. Animals reared are cattle, goats, sheep and poultry. Commercial activities are mainly done in urban areas and rural trading centres. Also people in Dodoma region engage in activities like bee-keeping, fishing, mining and salt extraction. The region has a few small-scale industries and most of which are confined to urban centres (URT, 1997).

Social services

In most parts of the region social services are inadequate. In average a person need to walk about two to ten kilometres in order to get a service like dispensary or hospital, school, water, fuel, market, shop, milling and the like (URT, 1997). Thus accessibility to basic social services is still a problem to most of people in the region. The region has 505 primary schools that enrol only 41.2 percent of children eligible to go to school. Enrolment rate is lower in rural areas compared to urban areas. Rural schools lack basic facilities such as classrooms, furniture, equipment, teachers and other learning resources (URT,

1997). Such factors adversely affect pupils' educational achievement. In terms of secondary school education Dodoma is one of disadvantaged regions in the country. The region has 22 secondary schools only. Due to limited number of secondary schools, few primary school leavers secure a place in secondary schools. In average only 6.3 percent primary seven leavers join public secondary schools in the region. Examination performance is still low both in primary and secondary schools. For example, in 1996 primary seven examination results, Dodoma region was the last in the list of twenty, therefore its performance in terms of quality and quantity is very low compared to other regions (URT, 1997).

3.2 Research Design

The study employed a cross–sectional or correctional research design. This is because, the design allows collection of data on different groups of respondents at one point at a time (Bailey, 1987). For example students with different age, sex and economic status; also it gives room to make comparison among the respondents, and see how dependent variable relates with independent variable (s). Because the study is descriptive/explanatory; hence a proper research design is cross sectional/correlation. The design has greater degree of accuracy and precision in social science studies, than other designs like observation. Unlike observation and experimentation the design provides findings a-gently, thus helped the investigator to get quick results.

3.3 Sampling procedure

A simple random sampling (SRS) procedure was applied to obtain schools and respondents involved in the study. The sample consisted of nine secondary schools, from which respondents were drawn from two groups of people, students and teachers. This is

because the two groups interact together in teaching-learning process using allotted time for specific activities, hence assumed to provide reliable information on time management in secondary schools.

3.3.1 Sampling technique

Basically, there are two major groups of sampling methods namely probability methods and none probability methods. In this study random sampling as probability method was employed. Schools involved in the study were selected randomly. After determining the sample size, both proportionate and random samplings were applied to select respondents from both private and government secondary schools located both in urban and rural areas. This technique ensured that every sampled respondent had equal chance of being selected; hence reduced biases in sampling respondents. Thus, these techniques were used because they are more precise for correlation studies.

3.3.2 Sample size

The sampling unit composed of students and teachers. This is because the study intended to compare their time management behaviour with examination results. Students are the majority in schools and are the major time users and time bound. Also they form a homogenous population, which was believed to provide reliable data for making comparison among schools and making correlation with their examinations result grades/scores.

The sample size was fifteen percent (15%) of the entire population 842 (form three students and schoolteachers); this made a total of 130 respondents (102 students and 28 teachers) from different schools. Thus the 15% sample size was enough to provide reliable data in this study. Results in table 1 and 2 below show the sample size. Form three

students were preferred because of the use of their National Form Two Examinations results (subject scores) in determining students performance.

Table 1: Sample size by schools

School	Students population			Teachers population			Students sample			Teachers sample			Total sample		
	M	F	To	M	F	To	M	F	To	M	F	To	S	T	To
P	72	0	72	10	0	10	11	0	11	2	0	2	11	2	13
Q	35	40	75	12	6	18	5	6	11	2	1	3	11	3	14
R	39	54	93	16	4	20	6	8	14	2	1	3	41	3	17
S	13	19	32	10	0	10	2	3	5	2	0	2	5	2	7
T	20	33	53	8	3	11	3	5	8	1	1	2	8	2	10
U	27	24	51	8	2	10	4	4	8	1	1	2	8	2	10
V	47	40	87	6	11	17	7	6	13	1	2	3	3	13	16
W	80	40	120	26	4	30	12	6	18	4	1	5	18	5	23
X	0	94	94	21	18	39	0	14	14	3	3	6	14	6	20
Total	333	344	677	117	48	165	50	52	102	18	10	28	102	28	130

M = Male F = Female S = Students T = Teachers To = Total

Table 2: Sample size by school ownership and location

		Students population			Teachers population			Students sample			Teachers sample			Total sample		
		M	F	To	M	F	To	M	F	To	M	F	To	M	F	To
School ownership	P	154	104	258	56	12	58	32	16	48	9	3	12	41	19	60
	G	119	240	359	61	36	97	18	36	54	9	7	16	27	43	70
	To	273	344	617	117	48	155	50	52	102	18	10	28	68	62	130
School location	U	199	174	373	63	33	96	30	26	56	10	6	16	46	26	72
	R	134	140	274	54	15	69	20	26	46	8	4	12	28	30	58
	To	333	314	647	117	48	165	50	52	102	18	10	28	74	56	130

P = Private G = Government U = Urban R = Rural To = Total

3.4 Data collection procedure

3.4.1 Sources of data

Secondary schools like other educational institutions in Tanzania schedule activities and responsible authorities like the Ministry of Education and Culture, National Examination

Council of Tanzania, Tanzania Institute of Education as well as heads or school managers allot time. Thus secondary schools are reliable sources of the time management information in relation to students' performance. Both primary and secondary data were gathered and used so as to achieve the objectives of the study.

Primary data

Primary data on time utilisation were collected from sampled respondents using questionnaire survey and in-depth interview.

Secondary data

Secondary data on students' performance, instructional time allocation and attendance were collected by from documents available in schools and through observation.

3.4.2 Methods of data collection

The researcher assisted by two hired and trained form six persons collected data using questionnaires, observation, in-depth interviews and documentation methods.

Primary data

Primary data were collected using non-participatory observation, and questionnaire (structured in-person interview) to all respondents. The methods are good in obtaining facts about current prevailing practices or behaviours hence is preferred to and widely employed by most modern social science researchers.

Secondary data

Secondary data were mainly collected by documentary method. The method was employed in collecting data on allotted instructional time per subject, student's academic performance, number of teachers, number of days schools on in a year, activity schedules, class attendance and reporting to school from holidays.

3.5 Reliability and validity of methods

To test validity and reliability of methods for data collection and analysis, pilot study (test) was done three weeks, before actual data collection. The exercise was done for seven days, in three different schools.

Pilot study/test was done in order to observe the following: Test data collection instruments, see if tools allow collection of required information, and hence identify potential problems. Assess time needed for data collection. Check availability of study population and reactions of respondents. See whether the time located for one interviewee is enough. See how well research team works together after short training and whether the costs and other requirement are adequate, and test procedures for data processing and analysis, see that if at all findings make sense.

3.6.0 Data processing, analysis and presentation

3.6.1 Data processing

Collected data were processed and verified prior to analysis using Statistical Package for Social Science (SPSS 9.0 for windows) computer software at Sokoine University of agriculture (SUA), Morogoro.

3.6.2 Data analysis

Descriptive statistics were used to analyse data so as to find the sample means and percentages for studied variables. Also were used for drawing important frequency distribution graphs and tables. The amount of time spent in teaching-learning process was also calculated using descriptive statistics. Documentation information (scores) were correlated with students' time spent in academic matters. Correlation analysis and regression analyses were applied to test association of time management and students' performance. Cross-tabulation is both a powerful way of communicating information and

commonest form of data presentation (Casley and Kumar, 1998), so it was employed to examine association of variables studied. Students' performance was assessed in terms of scores in form two National examinations. Multiple regression model was used to analyse factors influencing students' performance.

The model took the form of:

$Yi = b_0 + b_1 x_1 + b_2 x_2 + b_3 x_3 \ldots\ldots\ldots\ldots\ldots + b_i x_i + e$

Where:

Yi = The i^{th} observed value of dependent variable indicating average students' examination scores (GPA)

b_0 = A constant term showing interception of factors influencing performance

b_1- b_i = Coefficient or parameter for the independent variables

X_1 = Independent factor showing number of teachers in school

X_2 = Independent factor showing students readiness (age)

X_3 = Independent factor showing distance to school in kilometres

X_4 = Independent factor showing time elapsing in school without academic work

X_5 = Independent factor showing total amount of time that teachers spend in teaching (class lessons) in a week

X_6 = Independent factor showing total amount of time in hours spend for group discussions in a week

X_7 = Independent factor showing School and classroom leaning environment

X_8 = Independent factor showing Civics teachers quality

X_9 = Independent factor showing Kiswahili teachers quality

X_{10} = Independent factor showing English teachers quality

X_{11}= Independent factor showing History teachers quality

X_{12} = Independent factor showing Geography teachers quality

X_{13} = Independent factor showing Mathematics teachers quality

X_{14} = Independent factor showing Chemistry teachers quality

X_{15} = Independent factor showing Physics teachers quality

X_{16} = Independent factor showing Biology teachers quality

X_{17} = Independent factor showing Student attendance

X_{18} = Independent factor showing Civics utilised instructional time

X_{19} = Independent factor showing History utilised instructional time

X_{20} = Independent factor showing Geography utilised instructional time

X_{21} = Independent factor showing Biology utilised instructional time

X_{22} = Independent factor showing Physics utilised instructional time

e = Error term (random disturbance error)

A test of multicollinearity was undertaken by running multivariable correlation matrix so as to avoid the problem of multicollinearity. Then regression was run to obtain R^2 (coefficient of determination) which represents the proportion of variation in the dependent variable by variation in the independent variables. Thus R^2 was used to determine the extent to which the mentioned independent variables influence students performance.

Hypotheses tested were; Ho: $b = 0$ Ha: $b \neq 0$

In both chi-square test and t-test the level of statistical significance used was 0.05 and where significant, the comparison was done at lower levels (0.01 and 0.001).

3.6.3 Data presentation

In this study tables, graphs and equation have presented data for different studied variables. Thus, discussions, recommendations and concluding remarks basically base on

computed Chi-square (χ^2), frequencies, percentages and regression analysis. Instruments applied in analysing time management are Plans/Schedules of activities, Punctuality and class attendance as work place for teachers and learning place for students as well as allocation and use of time in various subjects per week.

3.6.4 Linkages between research objectives, concepts, questions, and methods of data collection and data analysis.

Research problem, research objectives, major concepts and research questions have been presented in separate section. To provide continuity, there is a need of having clear linkages between specific objectives, the major concepts, and the research questions and research methodology. Table 3 gives a summary of linkages of the mentioned items.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Overview

This chapter presents results and discussion on utilisation of instructional time, the effects of gender on time management and performance, utilisation of instructional time and its impacts on performance, relationship between time management and performance, and time management and performance among students from urban and rural schools.

The first section in this chapter briefly identifies time resource wastage in schools, sources of time resource wastage, time management behaviours among students and teachers, and examines if the way time resource is spent in schools has any impact on student's scores.

The second section investigates the effects of gender in time resource management and performance among students. The third section examines whether utilisation of instructional time for non-academic activities has any impact on students' performance. The fourth section covers a substantial part of this chapter; it establishes the relationship between time utilisation in different activities and students' academic performance. The last section compares time management and academic performance among students who study in urban schools and those studying in schools located in rural areas.

The data are mainly tabulated with respect to research objectives and questions, chi-square (χ^2) test was employed to test significant differences.

4.2 Background characteristics of respondents

4.2.1 General

The background characteristics of respondents interviewed in this study are shown in table 4.1. The parameters included sex, age, location, residence, and student category, profession and education level.

4.2.2 Sex

The selected sample for the present study comprised 102 students and 28 teachers. Of 102 interviewed students 49% were males and 51% female respondents, respectively. For teachers 64.3% and 35.7% were male and female respondents, respectively (table 4.1). The chi-square test indicated that there were no statistically significant (P>0.05) associations between sex and students performance.

4.2.3 Age

Age is among students and teachers characteristics, which is often examined in performance studies as it may influence performance in many ways. Since all students and teachers had equal chances of participating in this study there fore, no age group had special treatment. Higher proportion of student respondents (78.5%) aged between 15 and 21 years and teachers (21.5%) of all respondents aged between 25 and 56 years (table 1). The mean age of students was 17.6 and teachers 35 years.

According to the chi-square test, the age distribution of respondents was not significantly (P>0.05) associated with students' examination performance. This means that there is no specific student age group among secondary school students with special performance capabilities.

Table 4.1. Distribution of respondents by background characteristics

Characteristics	Students		Teachers		Total	
	Number	%	Number	%	Number	%
Sex						
Male	50	49	18	64.3	68	52.3
Female	52	51	10	35.7	62	47.7
Total	**102**	**100**	**28**	**100**	**130**	**100**
Age						
A. Students						
15-17	52	51	-	-	-	-
18-20	49	48	-	-	-	-
21-23	1	1	-	-	-	-
Total	**102**	**100**	-	-	-	-
B. Teachers						
25-34	-	-	15	53.5	-	-
35-44	-	-	9	32.1	-	-
45-54	-	-	3	10.8	-	-
55-64	-	-	1	3.6	-	-
Total	-	-	**28**	**100**	-	-
Location						
Rural	45	41.1	12	42.9	57	43.8
Urban	57	55.9	16	57.1	73	56.2
Total	**102**	**100**	**28**	**100**	**130**	**100**
Residence						
School campus	43	42.2	15	53.6	58	44.6
Off school campus	59	57.8	13	46.4	72	55.4
Total	**102**	**100**	**28**	**100**	**130**	**100**
Student category						
Boarding	42	41.2	-	-	-	-
Day	60	58.8	-	-	-	-
Total	**102**	**100**	-	-	-	-
Level of education						
Certificate	-	-	2	7.1	-	-
Ordinary diploma	-	-	24	85.7	-	-
Graduate	-	-	2	7.1	-	-
Total	-	-	**28**	**100**	-	-
Profession						
With teaching profession	-	-	25	89.3	-	-
Without teaching profession	-	-	3	10.7	-	-
Total	-	-	**28**	**100**	-	-

4.2.4 Location

Location of respondents was among the examined respondents' characteristics. The rural – urban categories were employed to see their influence on students' performance. Over a half of respondents were sampled from urban areas and less than half from rural areas. Association between respondents' location and performance was examined. However the

chi-square test revealed no statistical significant (P>0.05) between location and examination performance.

4.2.5 Place of residence

Both teachers and students either stay in school campus or off campus. The impact of place of residence on students' performance was examined. Over a half of respondents stayed off school campus and less than half stayed within school campuses. The distribution was associated with students' performance and chi-square test revealed no significant association (P>0.05) between place of residence and examination performance.

4.2.6 Students category

Boarding or day school students' characteristic was examined and associated with students' performance. Over a half of students were day scholars and less than half were boarding scholars. The chi-square test denoted no significant (P>0.05) association between performance and boarding or day student categories.

Number of respondents

Out of 130 subjects, 28 were teachers and 102 were students. The distribution of the subjects per sampled schools, school ownership and location is indicated in table 1 and 2. Letters represent school names, however all the schools were selected from the districts of Dodoma region, Tanzania.

4.3 Time management in secondary schools

Time like all other resources can be spend in different manner, can be saved, used wisely or wasted (Kreitner and Knicki, 1992). Time management information in schools was tapped

4.3 Time management in secondary schools

Time like all other resources can be spend in different manner, can be saved, used wisely or wasted (Kreitner and Knicki, 1992). Time management information in schools was tapped by using documentation, questionnaire survey, and observation techniques. Using subjects' instructional time indicated in the curriculum and subjects' located time in school timetables the difference was computed to obtain learning time wasted by timetabling. Results are summarised in table 4.2.

Table 4.2: Subjects' instructional time (in hours) wasted by time-tabling in a week

	Civics	Kiswahili	English	Geography	History	Biology	Chemistry	Physics	B.Mathematics	Agricultura	Commerce	Book-keeping	Food and nutrition
Mean	0.5	IN	0.4	0.3	0.4	IN	IN	IN	0.0	0	0.4	0.4	IN
Mode	0.6	IN	0	0.6	0.6	IN	IN	IN	0	0	0.6	0.6	IN
Median	0.6	IN	0	0.6	0	IN	IN	IN	0	0	0.6	0.6	IN
Minimum	0	IN	0	0	0	IN	IN	IN	0	0	0	0	IN
Maximum	0.6	IN	2	0.6	1.3	IN	IN	IN	0.6	0	0.6	0.6	IN

IN = Computation not done as instructional time not specified in the curriculum.

The extent to which schools use the allocated instructional time, stick to schedules and utilise the194 days in a year were important indicators of time utilisation in schools, among students and teachers. It was observed that a considerable amount of subjects' instructional time get wasted due to time-tabling, teachers not teaching and schools being on for less than 194 days a year.

Data in table 4.2 show instructional time in hours wasted by timetabling per subject per week. In the subjects whose instructional time was specified in the syllabuses only agricultural science subject showed no loss of instructional time due to time tabling. In average Civics showed the highest time loss in a week, Basic Mathematics and Agricultural Science showed lowest time loss. The maximum time wasted by timetabling

was 1.3 hours in History subject. Thus it is evident that schools misuse some of subjects' located instructional time by poor timetabling.

Table 4.3: Instructional time (in hours) wasted by teachers not teaching

	Civics	Kiswahili	English	Geography	History	Biology	Chemistry	Physics	B.Mathematics	Agricultural science	Commerce	Book-keeping	Food and nutrition
Mean	0.1	0.2	0.8	0.2	0.2	0.4	0.7	0.7	0.4	0.9	1.1	1.1	0
Minimum	0	0	0	0	0	0	0	0	0	0.6	0	0	0
Maximum	1	0.6	2.6	0.6	0.6	1.3	2.6	2	2	1.3	2.6	2.6	0
Mode	0	0	0	0	0	0	0.6	0.6	0	0.6	0	0	0
Median	0	0	0	0	0	0.3	0.6	0.6	0	0.9	0.6	0.6	0
Std Deviation	0.3	2.9	1.0	0.3	0.3	0.4	0.8	0.6	0.8	0.5	1.4	1.4	0

Data in table 4.3 show instructional time lost by teachers not teaching due to various reasons. Commercial subjects that is Commerce and Bookkeeping showed greatest averages of instructional time lost by teachers' tendency of not teaching, followed by agricultural science, chemistry and physics. While food and nutrition subject showed fully utilisation of allocated teaching-learning time. Therefore part of certain subjects' located time tend to be misused simply because subject teachers fail to show up in their respective classes for teaching.

Findings in table 4.4 show total misused learning time in hours per subject per week and per year in parentheses. Among the subjects with specified instructional time, again commercial subjects denoted greatest average in terms of time wastage in a week and in a year. Civics showed the lowest time loss. Therefore the table indicates total misused subject instructional time in schools ranges between 0.4 hours per week (16.4 hours per year) and 1.6 hours per week (62.1 hours per year).

Table 4.4: Total misused instructional time in hours per subject per week and per year

	Civics	Kiswahili	English	Geography	History	Biology	Chemistry	Physics	B.Mathematics	Agricultural science	Commerce	Book-keeping	Food and nutrition
M	0.5 (20.6)*	-	1.0 (38.8)	0.6 (21.1)	0.6 (22.8)	-	-	-	0.4 (16.4)	0.9 (36.1)	1.6 (62.1)	1.6 (62.1)	-
Mc	0.6 (22.8)	-	0	0.6 (22.8)	0.6 (22.8)	-	-	-	0	0.95 (36.1)	1.6 (60.8)	1.6 (60.8)	-
Mo	0.6 (22.8)	-	0	0.6 (22.8)	0	-	-	-	0	0.6 (22.8)	0	0	-
Mi	0	-	0	0	0	-	-	-	0	0.6 (22.8)	0	0	-
Max	1 (38)	-	4 (152)	1.3 (49.4)	1.3 (49.4)	-	-	-	2 (76)	1.3 (49.4)	3.3 (125.4)	3.3 (125.4)	-

M = Mean, Me = Median, Mo = Mode, Mi = Minimum, Max = Maximum

* = Time misused in hours per year

- = Computation not done as instructional time not specified in the curriculum

Table 4.5: Students' and teachers' views on school schedules for various activities

	YES		NO		Total	
	Number	%	Number	%	Number	%
Students	51	50	51	50	102	78.5
Teachers	9	32.1	19	67.7	28	21.5
Total	60	46.2	70	53.9	130	100
$\chi^2 = 13.2$	df = 8		Pvalue = 0.111NS			

NS = Not significant

The extent to which secondary schools schedule activities for a day, week, month and for the entire 38 weeks of learning in a year was also an important variable to learn how teachers and students manage the allocated time in different activities. It was observed that schedules exist in schools but are not always followed.

Results in table 4.5 indicate students and teachers views on activities carried out in their schools if are always the scheduled ones or not. Over half of respondents said activities

performed in their schools are not only the scheduled ones, Less than a half said that in their schools performed scheduled activities. This reveal that unscheduled activities performed in schools tend to interfere teaching-learning time, hence making some of instructional time to be used for unintended purposes. However, chi-square test showed no statistical significant difference (P>0.05) on respondents' views about activities carried out in schools.

Table 4.6: Number of days the schools operated in the year 2001

	School								
	P*	Q*	R	S	T	U*	V	W*	X
Number of days the school on	196	170	181	164	160	195	183	189	185
Deviation (d)	+2	-14	-13	-30	-34	+1	-11	-5	-9
$\chi^2 = 69.003$			df = 27			Pvalue = 0.000S			

S = Significant

* = Private school

Also the number of days the schools are on per year was another important indicator of time management. It was observed that majority of the schools never operate for 194 days or 38 weeks in a year as per instruction of the Ministry of Education and Culture. Results in table 4.6 show schools and the number of days were on in the year 2001. Negative figures in row "d" denote days less to the 194 while positive figures denote days over 194. Only two schools operated for recommended number of days. School 'T' was the leading in misusing the 194 days, it was not on for 34 days, and second leading was school 'S' that misused 30 days. The misused days ranged from five to thirty four days, that is one week to five weeks, in average16.6 days or two weeks. Government schools wasted more days than private schools. On this variation in the use of the 194 days among schools, the chi-square test revealed statistical significant difference (P<0.05) in the use 38 weeks or 194 days of learning among schools.

These findings reveal that, the level of time management varied from one school to another. This implies that time as a perishable resource is perceived and utilised differently in secondary schools. This supports Kreitner and Knicki (1992) argument that a cultural perception of time differs from one society or organisation to another.

Noya (1994) found similar results that one to ten days waste per month in schools. This implies that schools could not go through the syllabuses successfully and may be related to students' low performance. The implication holds water since schools that spend part of learning time in performing non-academic activities could have less available time for learning activities. Thus it could be concluded that less than recommended learning time be spent in some schools.

Dean (1986) states that, timetabling process involves manipulating the six variables of curriculum, learners, teachers, content, space, and time are well utilised, lessons appropriately distributed across each day, students and teachers having a program which is satisfactory.

As opposed to that, experience shows that there is no close relationship between timetabling and the available resource. For instance students to enter the class while no subject teacher to teach a particular subject, shortage of working tools, shortage teaching-learning materials could result into rearrangement of different activities at different periods so as to avoid wastage of time.

According to Boma (1980), absenteeism for both teachers and students cause learning time wastage in schools, and it thus negatively affects academic performance, since examination results have indicated that part of reasons for poor performance is poor

attendance. This means wastage of instructional time by poor attendance contributes significantly to students' low academic performance.

4.3.1 Causal factors of time resource misuse in secondary schools

Students and teachers explained some of the root causes of time resource misuse in schools. A list of possible causes was established, students and teachers were asked to respond to each possibility. The survey data in table 4.7 revealed that there were different causes of time misuse in schools located both in rural and urban areas.

The dominant factor as a cause of time misuse was teachers attending seminars and invigirating national examinations indicated by 99.9 percent of students and 92.8 percent of teachers however, chi square test showed no statistical significance ($P>0.05$) for this cause of time misuse.

The second dominant factor was students reporting late to school from holidays indicated by 0ver three quarters of students and teachers. For this factor chi-square test denoted statistical significance ($P<0.05$) that it causes misuse of time.

The third one was shortage of teachers in schools as indicated by over three-quarters of students and three quarters of teachers, chi-square test showed statistical significance ($P<0.05$) that it causes time wastage in schools.

The fourth factor was lack of working equipment like brooms buckets hoes, forks and the like indicated by three quarters of students and three fifth of teachers, and statistical significance ($P<0.05$) has been shown by chi-square test.

The fifth factor was attending medical treatment, indicated by more than a half of students and teachers, and the chi-square test denoted statistical significance ($P<0.05$).

Table 4.7: Causes of instructional time misuse in secondary schools (%)

Factor	Students and teachers responses									
	Strongly disagree		Disagree		Agree		Strongly agree		Total	
	S	T	S	T	S	T	S	T	S	T
Attending medical treatments χ^2=65.867,df=27,Pvalue=0.000S	5.9	7.1	31.4	32.1	47.1	57.1	15.7	3.6	100	100
Cleanliness activities χ^2=71.546,df=27,Pvalue=0.000S	11.8	7.1	39.2	46.4	38.2	39.3	10.8	7.1	100	100
Frequent emergencies χ^2=90.16,df=36,Pvalue=0.000S	8.8	7.1	31.4	28.6	36.3	53.6	23.5	10.7	100	100
Involvement in students government χ^2=33.74,df=27,Pvalue=0.174NS	19.6	14.3	45.1	53.6	27.5	32.1	7.8	-	100	100
Inadequate transport to school χ^2=80.750,df=27,Pvalue=0.000S	14.7	14.3	24.5	32.1	33.3	39.3	27.5	14.3	100	100
Lack of working tools χ^2=73.749,df=27,Pvalue=0.000S	3.9	3.6	22.5	35.7	45.1	35.7	28.4	25	100	100
Meetings/school *baraza* χ^2=42.439,df=27,Pvalue=0.030S	20.6	7.1	50	46.4	27.5	42.9	1.96	3.6	100	100
Phone calls χ^2=51.793,df=27,Pvalue=0.003S	35.3	35.7	31.4	50	21.6	14.3	11.8	-	100	100
Teachers attending seminars and invigirating national examinations χ^2=22.06,df=18,Pvalue=0.229NS	-	-	-	7.1	54.9	57.1	45.1	35.7	100	100
Shortage of teachers χ^2=58.669,df=27,Pvalue=0.000S	6.9	3.6	8.8	17.9	40.2	42.9	44.1	35.7	100	100
Students reporting late to school χ^2=91.630,df=27,Pvalue=0.000S	5.9	-	11.8	7.1	33.3	60.7	49.0	32.1	100	100
Students send home to collect school fees χ^2=47.856,df=27,Pvalue=0.008S	4.9	-	12.7	21.4	27.5	50	54.9	28.6	100	100
Teachers meetings χ^2=54.729,df=27,Pvalue=0.001S	3.9	7.1	29.4	42.9	54.9	46.4	11.8	3.6	100	100
Unscheduled visits and public activities χ^2=57.332,df=27,Pvalue=0.001S	11.8	10.7	40.2	50	35.3	32.1	12.7	7.1	100	100
Teachers excuses χ^2=104.06,df=18,Pvalue=0.000S	5.9	14.3	22.5	39.3	51.9	42.9	19.6	3.6	100	100
Punishment administered during class hours χ^2=69.209,df=27,Pvalue=0.000S	5.9	7.1	10.8	28.6	36.3	57.1	47.1	7.1	100	100
Services not given in time χ^2=102.08,df=27,Pvalue=0.000S	47	53.6	31.4	25.0	12.7	17.8	8.8	3.6	100	100

NS = Not significant

S = Significant

Another important cause of time misuse was punishments administered during class hours, indicated by four fifth of students and three fifth of teachers. It was mentioned by large number of respondents and chi-square test indicated statistical significance ($P<0.05$) that punishments cause misuse of time in schools.

Also frequent emergencies was among common causes of time misuse in schools explained by teachers and students, was indicated by three fifth of students and over three fifth of teachers, however, chi-square test showed no statistical significance (P>0.05). Further more although smaller percent 35.3 of students and 32.1 of teachers stated that participation or involvement in students' governance cause misuse of instructional time in schools and among students, the chi-square test showed statistical significance (P<0.05)

Other factors for time misuse being indicated by a considerable number of respondents in table 4.7, chi-square test showed statistical significance since Pvalues are smaller than 0.05 suggested significance level.

The study reveal that factors causing time misuse in secondary schools as observed by students and teachers include students reporting late to school, shortage of teachers, lack of working equipment, attending medical treatments, and frequent emergencies. These research data are similar to those found in teachers colleges by Chediel (1993), which show that time misuse in colleges results from various factors. Also supports Somerset (1968) argument that involvement in students' government causes no learning time misuse in schools.

4.3.2 Time Management behaviour among schools, students and teachers

4.3.2.1 Time management behaviour in schools

The distribution of students and teachers in response to self-evaluation and time resource utilisation in schools was used to examine how schools located time.

Table 4.8: Students' and teachers' views on misuse of time in secondary schools (%)

	Noted misuse of time in school					
	YES		NO		Total	
	Number	%	Number	%	Number	%
Students	73	71.6	29	28.4	102	100
Teachers	18	64.3	10	35.7	28	100
Total	**91**	**70**	**39**	**30**	**130**	**100**
	χ^2 = 5.313		df = 8		Pvalue = 0.724NS	

NS = Not significant

Findings in table 4.8 indicate that three-quarters of students and three fifth of teachers noted misuse of time resource in their schools, while one third of students and two fifth of teachers didn't note misuse of time in their schools. Though most of respondents noted misuse of time in their schools chi-square test showed no statistical significance (P>0.05) in misuse of time in schools.

The extent to which schools abide to daily schedules was an important variable as to what level the schools manage the allocated time in different activities. This was shown by the events listed and students were asked to scale them according to frequency of occurrence.

Findings in table 4.9 indicate that in the event of subject teacher absent, two percent indicated that the event occurs always, 36.3 percent indicated very often, 35.3 percent indicated sometimes and 25.5 percent indicated very rare. Although most of students (73.6%) agreed for the occurrence of teachers' absenteeism in schools the chi-square test indicated no statistical significance (P>0.05).

Table 4.9: Events breaking daily schedules and effective time utilisation

Event	Students responses					Total
	Never	Very rare	Sometimes	Very often	Always	
Subject teacher absent $\chi^2 = 9.716$, df = 8 Pvalue = 0.280 NS	1 (0.98)*	26 (25.5)	36 (35.3)	37 (36.3)	2 (1.96)	102 (100)
Subject teacher enter class late $\chi^2 = 12.327$, df = 8 Pvalue = 0.137 NS	5 (4.9)	27 (26.5)	35 (34.3)	31 (30.4)	4 (3.9)	102 (100)
Teacher get out of the classroom before the end of the period $\chi^2 = 7.743$, df = 8 Pvalue = 0.459 NS	11 (10.8)	28 (27.5)	37 (36.3)	25 (24.5)	1 0.98)	102 (100)
Doing punishment while others learning $\chi^2 = 17.17$, df = 8 Pvalue = 0.028 S	3 (2.9)	28 (27.5)	22 (21.6)	29 (28.4)	20 (19.6)	102 (100)
Doing none academic activities while others studying $\chi^2 = 4.446$, df = 8 Pvalue = 0.815 NS	8 (7.8)	40 (39.2)	35 (34.3)	12 11.8)	7 (6.9)	102 (100)
Period cancelled without genuine reason $\chi^2 = 7.087$, df = 6 Pvalue = 0.313 NS	10 (9.8)	30 (29.4)	31 (30.4)	31 (30.4)	-	102 (100)
Period cancelled due to emergencies $\chi^2 = 11.21$, df = 8 Pvalue = 0 .190 NS	1 (0.98)	30 (29.4)	41 (40.2)	24 (23.5)	6 (5.9)	102 (100)

* Figures in parentheses denote percent

NS = Not significant

S = Significant

For subject teachers entering classes late for teaching, a few respondents indicated always, one third indicated very often and sometimes, respectively, and less than one third indicated very rare. In this event also chi-square test revealed no statistical significance ($P>0.05$) that teachers in secondary schools enter classes late for teaching.

Subjects' teachers getting out of the class before end of the period; quarter of the respondent indicated that it occurs very often, about two fifth indicated sometimes while

about one third indicated very rare. However chi-square test showed no statistical significance (P>0.05) that teachers end up teaching sessions before end of the located time.

Doing punishment while other students are in the class learning; one fifth respondents indicated that it occurs always in their schools, one third indicated very often, one fifth also indicated sometimes and one third indicated very rare. Thus three quarters of respondents were on the opinion that the event occurs in schools, and chi-square test showed statistical significance (P<0.05) that students doing punishment while others learn is common event in schools.

Doing none academic activities while other students studying; majority indicated very rare followed by sometimes, very few indicated always. The chi-square test showed no statistical significance (P>0.05).

Teacher-students interaction periods cancelled without genuine reasons; no respondent indicated it always occurs, where as one third indicated it occurs very often, sometimes and very rare respectively. However, chi-square test revealed no statistical significance (P>0.05) for the occurrence of that event in schools.

Teacher - students' interaction time cancelled due to emergencies; majority 2/5 of respondents indicated sometimes, followed by very rare indication and a few indicated always. Chi-square test revealed no statistical significance (P>0.05) for the occurrence of that event in schools.

These findings reveal that though a considerable percent of respondents mentioned frequent occurrence of events showing that schools don't stick to their daily schedules, occurrences

of most of such events as mentioned above are not statistically significant since Pvalues are greater than 0.05 significance level.

Table 4.10: Views on effective utilisation of time for teaching-learning tasks

	Time for teaching-learning tasks effectively utilised?					
	Never	Very rare	Sometimes	Very often	Always	Total
Students	2	25	42	28	5	102
	(1.9)*	(24.5)	(41.2)	(27.5)	(4.9)	(100)
Teachers	-	4	14	9	1	28
		(14.3)	(50)	(32.1)	(3.6)	(100)
Total	2	29	56	37	6	130
	(1.5)	(22.3)	(43.1)	(28.5)	(4.6)	(100)
$\chi^2 = 10.14$		df = 8		Pvalue = 0.255 NS		

* Figures in parentheses denote percent

NS = Not significant

Utilisation of time for teaching-learning tasks was another important factor for examining how instructional time is spent in schools. Data in table 4.10 show respondents views on effective utilisation of instructional time in schools. The findings reveal that of all the respondents 4.6 percent indicated there was always effective utilisation of time located for teaching-learning tasks, 28.5 percent indicated very often, 43.1 percent indicated sometimes, 22.3 percent indicated very rare while 1.5 percent indicated never. Though most of the respondents (76.6%) were on the opinion that teaching-learning time is effectively utilised in schools, chi-square test denoted no statistical significant difference (P>0.05) in effective learning time utilisation among schools.

Table 4.11: Students' opinions on morning parade consuming teaching learning Time

Morning parade consumes part of teaching-learning time?	Number	%
Never	5	4.9
Very rare	31	30.4
Sometimes	29	28.4
Very often	32	31.4
Always	5	4.9
Total	**102**	**100**
$\chi^2 = 27.352$ df = 8 Pvalue = 0.001S		

S = Significant

Consumption of teaching–learning time by morning parade was another variable used for detecting how schools manage time resource. Students were asked to express their views if morning parade or *baraza* consumed part of their learning time. Results in table 4.11 reveal that a few students indicated never and always, over 1/3 indicated very often, less than 1/3 indicated some times, and 1/3 indicated very rare.

Large percent (64.7%) claimed that part of their learning time was misused due to prolonged announcements in morning assemblies. Chi-square test showed statistical significance (P<0.05) for the phenomenon.

Table 4.12: Students' views about school schedules in schools

How do feel about school schedules?	Number	%
Not at all	1	0.9
Very little	7	6.9
Somehow good	35	34.3
Good	44	43.1
Very good	15	14.7
Total	**102**	**100**
$\chi^2 = 77.33$ df=36 Pvalue = 0.000S		

S = Significant

Students' views on the feelings about school schedules were collected in order to examine the extent at, which are comfortable with school timetables for managing their time. Results in table 4.12 indicates that only less than 1/5 students felt very good, over 2/3 felt good, over 1/3 felt somehow good, and a few felt very little. This implies that large percent of

students (42.2%) were not comfortable with the way activities are scheduled in their schools, and 57.8 percent were comfortable. This study using chi-square test showed statistical significance (P<0.05) for the phenomenon.

Table 4.13: Students' opinions on shortage of teachers in schools

Experience a problem of total absence of certain subject's teachers?	Number	%
Never	8	7.8
Very rare	30	29.4
Sometimes	44	43.1
Very often	16	15.7
Always	4	3.9
Total	**102**	**100**

$\chi^2 = 84.962$ df=36 Pvalue = 0.000S

S = Significant

The problem of total absence of certain subject teachers was another indicator of time management in schools. Students were asked to give their opinions if they ever experienced a complete absence of certain subject teachers therefore letting time located for subject freely elapsing. Results in table 4.13 indicate that 4.0 percent always experienced the problem, 15.7 percent indicated very often, 43.1 percent indicated sometimes, 29.4 percent indicated very rare and 7.8 percent indicated never. This revealed that over fifty percent students were not taught some of the subjects because teachers were not available. Chi-square test denoted statistical significance (P<0.05) that some of instructional time elapsed due to lack of subject teachers in schools.

These research results reveal that, there is a problem of time management in secondary schools. The problem has been confirmed by significant responses on misuse of time for certain subjects because of doing punishment while other students learning, morning parade consumes part of learning time, schedules are not always followed, and shortage of teacher to teach.

Muze(1987) found deficiency of teachers in secondary schools in terms of academic qualifications, professional training, experience and numbers. Shortage of teachers at different levels has been a problem throughout the history of education in Tanzania. The main problem is not merely the numerical shortage but also shortage of qualified and permanent teachers for secondary schools. A serious shortage is on graduates, experienced teachers having high academic qualifications who can remain working to give continuity until an adequate supply of graduate teachers is reached. Major reasons for shortage include low payments and poor work environment.

In accordance to Oldocorn (1989), failure to plan adequately the use of time is often due to inability to recognise that effective planning of the use of time actually saves time. It is evident from this study that, sometimes, time wastage in schools emanates from outside the school boundaries, for example visitors, emergencies, public activities like rallies, ceremonies and the like are out of school control, that is teachers and students control. Such factors might affect the teaching-learning process, which ultimately could affect students' academic performance.

This study therefore reveals that, just a considerable portion of allocated learning time was actually used for educational relevant tasks in secondary schools. Thus, most of the students in secondary schools have been academically perfonning poorly for several years.

4.3.2.2 Secondary school students time management behaviour

Secondary schools students like other human beings with varying interests and social-cultural and economic background are expected to value and spend time in a diverse manner while at school and in their homes. Students were asked to indicate their level of

time management behaviour on a five point Likert scale form of questions, from never to always. The results are summarised in table 4.14.

Among others students' expression for utilisation of time, reporting to school late from holidays and locating time for studies when at home were considered. Other factors included were prioritising activities by importance and urgency, making daily arrangement of activities to accomplish, develop own objectives for a day and week, analyse how time is spend, finish given assignment on time and rate of making private studies. These were important variables and indicators for determining students' time management behaviour.

Results in table 4.14 indicates that only about 16.0 percent of students used time wisely, 32.0 percent sometimes used it wisely, 16.0 percent also rarely used it wisely and about 3.0 percent never used it wisely. Chi-square test showed statistical significance ($P<0.05$) in this phenomenon.

About 1/5 students indicated that never reported to school late from holidays, over1/3 indicated rarely reported late, less than 1/5 sometimes reported late, also less than 1/4 very often reported late and few always reported late. This revealed that about half of the students (47%) reported late to their respective schools from holidays. This study shows that there is significant difference ($P<0.05$) in reporting to school from holidays among students form different secondary schools.

Table 4.14 Secondary school students time management behaviour

Indicator	Responses					Total
	Never	Very rare	Sometimes	Very often	Always	
Use time wisely $\chi^2 = 70.951$, df = 36 Pvalue=0.000S	3 (2.9)*	16 (15.7)	33 (32.4)	34 (33.3)	16 (15.7)	102 (100)
Go to school late from holidays $\chi^2 = 96.599$, df = 36 Pvaluc=0.000S	18 (17.6)	36 (35.3)	18 (17.6)	24 (23.5)	6 (5.9)	102 (100)
Locate time for studies when at home $\chi^2 = 99.908$, df = 36 Pvalue=0.000S	1 (0.9)	34 (33.3)	27 (26.5)	38 (37.3)	12 (11.8)	102 (100)
Prioritise activities by importance and urgency $\chi^2 = 70.121$, df = 36 Pvalue=0.001S	6 (5.9)	19 (18.6)	32 (31.4)	32 (31.4)	13 (12.7)	102 (100)
Make daily arrangement of activities to accomplish $\chi^2 = 68.920$, df = 36 Pvalue=0.000S	2 (1.9)	16 (15.7)	29 (28.4)	36 (35.3)	19 (18.6)	102 (100)
Develop own objective for a day and week $\chi^2 = 67.800$, df = 36 Pvalue=0.001S	3 (2.9)	23 (22.6)	21 (20.6)	34 (33.3)	21 (20.6)	102 (100)
Analyse how time is spend $\chi^2 = 51.44$, df = 36 Pvalue=0.046S	11 (10.8)	20 (19.6)	27 (26.5)	28 (27.5)	16 (15.7)	102 (100)
Complete assignments on time $\chi^2 = 78.674$, df = 27 Pvalue=0.000S	-	17 (16.7)	37 (36.3)	37 (36.3	11 (10.8)	102 (100)
Finish cleanliness on time $\chi^2 = 70.148$, df = 27 Pvalue=0.000S	-	12 (11.8)	42 (41.2)	26 (25.5)	22 (21.6)	102 (100)
Feel studying very frequently or very seldom $\chi^2 = 41.278$, df=36 Pvalue=0.251NS	Very seldom 3 (2.9)	Seldom 16 (15.7)	Moderate 46 (45.1)	Frequently 30 (29.4)	Very frequent 7(6.9)	102 (100)

* Figures in parentheses denote percent

NS = Not significant

S = Significant

Few students indicated that while at home always located time for studies, almost 2/3 often located time for it, a quarter of them sometimes, and rarely located respectively, while very few never located. This denotes that many students (75.6%) located time for studies at home. Chi-square test revealed statistical significant difference ($P<0.05$) in locating time for studies among students from different secondary schools.

Prioritising activities by importance and urgency; few students indicated always, 1/3 indicated very often, 1/3 also indicated some times did it, about 1/5 indicated very rare and very few indicated never. This denoted that most students (75.5%) valued time as an important resource therefore organised activities by importance and urgency while a few students (24.5%) didn't do that. Thus most students kept on doing activities according to their importance and urgency. Chi-square test revealed statistical significant difference ($P<0.05$) on the observed behaviour.

Besides the above observed behaviour, nearly 1/5 indicated further that they always made daily arrangement of their activities to accomplish, 1/3 indicated sometimes did, more than 1/3 indicated often did it, less than 1/5 did it rarely while only a few never did it. Thus most students (82.4%) planned daily activities to accomplish. Chi-square test showed statistical significance ($P<0.05$) that students in different schools were making daily schedules of activities to accomplish.

Developing own objectives for a day and week; for this indicator of time management behaviour, 1/5 students indicated always, 1/3 indicated very often 1/5 also indicated sometimes, while over 1/5 indicated very rare and a few indicated never. Three quarters of students (74.5%) therefore developed own objectives to facilitate completion of time

bound activities, hence use time wisely. Chi-square test showed statistical significance ($P<0.05$) that students in different schools developed own objectives for a day or week.

Analysing how time is spent; less than 1/3 indicated very often, nearly 1/4 indicated sometimes, 1/5 very rare and few indicated never. So a considerable amount of students (69.6%) analysed the way they spent their time as perishable resource in schools. An understanding of whether they use it wisely or not might have assisted them to develop proper schedules for their activities. This study revealed weak statistical significance ($P<0.05$) that students analysed the way they spent time in schools.

Completing given assignments on time; very few students indicated always, over 1/3 indicated very often, also more than 1/3 indicated sometimes, less than 1/5 indicated very rare. This denotes that most of the students finished given assignments on time. Chi-square test showed statistical significance ($P<0.05$) that students in different schools finished assignments on time, this signifies that students wisely used the given time for assignments.

Feel studying very frequently or very seldom; in this indicator, few students indicated very frequently, 1/3 indicated frequently, over 2/5 indicated moderate, less than 1/5 seldom and very few indicated very seldom. This imply that large number of students spend time for both academic and non academic activities, while a few of them spend most of time in studying and very few spend most of time in non academic activities. Chi-square test showed no statistical significant difference ($P>0.05$) on study motivation among secondary school students studying in different schools.

Doing cleanliness on time; the extent to which students compete cleaning school surroundings was another indicator of students time management behaviour. Students were asked to respond to the question if they do it on time or not. Over 20 percent indicated always, 25.5 percent indicated very often, 41.2 percent sometimes, 11.8 percent indicated very rare. These data show that greater percent (88.3%) completed cleanliness on time. Chi-square test showed statistical significance ($P<0.05$) that students finished cleanliness activities in schools on time.

These findings imply that time resource planning by students was not always done by a good number of students, though many of them looked to be time conscious especially when in a year of national examination. This is illustrated for example only 15.7 percent always used time wisely and 12.7 percent always arranged activities by importance and urgency. Late reporting to schools, doing activities unplanned, lack of time resource consciousness led to misuse of potential learning time. Thus the observed statistical significant differences in time management behaviour among students from different schools may have contributed to their performance.

4.3.2.3 Secondary school teachers time management behaviour.

The extent to which teachers utilise time was an important indicator of how schools manage the allotted instructional time. Teachers were asked to express their time utilisation practices by responding to a series of question with scaled five points; about use of 24 hours of a day, work planning, task accomplishment, class teaching attendance, time spend in personal activities, time spent in developing students competence. Also time spent in students behaviour management, extra academic help, reporting at work place, feel about teaching, scheduling activities and assisting students facing difficulties in learning were

indicators used to study time management behaviour among secondary school teachers. Their responses have been summarised in table 4.15a and 4.15b.

Table 4.15a: Teachers' views on time management practices

Indicator	Responses					Total
	Never	Very rare	Sometimes	Very often	Always	
Evaluate the use of 24 hours of a day $\chi^2 = 25.615$ df = 24 Pvalue = 0.373 NS	-	7 (25.0)*	9 (32.1)	8 (28.6)	4 (14.3)	28 (100)
Write work plan for each day $\chi^2 = 31.282$, df = 24 Pvalue = 0.146 NS	-	1 (3.6)	7 (25.0)	13 (46.4)	7 (25.0)	28 (100)
Clear all the work on the table $\chi^2 = 26.192$, df = 24 Pvalue = 0.344 NS	-	3 (10.7)	16 (57.1)	7 (25.0)	2 (7.1)	28 (100)
Postpone teaching students $\chi^2 = 5.700$, df = 8 Pvalue = 0.681 NS	-	25 (89.3)	-	3 (10.7)	-	28 (100)
Spend more time in personal activities than school work $\chi^2 - 34.528$, df – 24 Pvalue = 0.076 NS	1 (3.6)	15 (53.6)	11 (39.3)	1 (3.6)	-	28 (100)
Spend time with students for behavior management $\chi^2 = 34.528$, df = 16 Pvalue = 0.076 NS	-	-	8 (28.6)	7 (25.0)	13 (46.9)	28 (100)
Report at work place on time $\chi^2 = 30.948$, df=24 Pvalue = 0.155 NS	-	1 (3.6)	4 (14.3)	11 (39.3)	12 (42.9)	28 (100)
Schedule time for tests, meetings, notes making and the like $\chi^2 = 48.124$, df=24 Pvalue = 0.002 S	-	3 (10.7)	4 (14.3)	13 (46.9)	8 (28.6)	28 (100)
Locate time to assist students facing difficulties in learning $\chi^2 = 53.582$, df=32 Pvalue = 0.010 S	2 (7.1)	5 (17.9)	11 (39.3)	5 (17.9)	5 (17.9)	28 (100)

* Figures in parentheses denote percent

NS = Not significant

S = Significant

Findings in table 4.15a indicate that only 14.3 percent teachers evaluated how they spent the 24 hours of a day, 28.6 percent indicated very often, 32.1 percent indicated sometimes, 25 percent indicated very rare. These data revealed that teachers of different schools are

almost similar in time resource consciousness, since chi-square test showed no statistical significant difference (P>0.05) in evaluation of the use of 24 hours among teachers working in various secondary schools.

Writing work plan for each day; in this item, a quarter of teachers indicated always, over two third indicated often, also quarter of them indicated sometimes, few indicated very rare. So above three-quarters (71.4%) planed their work most of the time, however a reasonable percent (28.6%) planed their work occasionally. Chi-square test denoted no statistical significant difference (P>0.05) in writing work plans among teachers from different schools taking other factors constant.

Clearing work on the table; a few indicated always, a quarter indicated very often, over three third indicated sometimes, and few very rare. Majority indicated sometimes perhaps due to time constraints. However Chi-square test showed no statistical significant difference (P>0.05) in finishing up daily activities among teachers from different schools.

Postpone teaching students; no teacher indicated always, sometimes or never. A tenth indicated very often and more than three-quarters indicated very rare. Most teachers therefore rarely missed class for teaching and chi-square test showed no statistical significance (P>0.05) on subject teachers' absenteeism in schools.

About 4 percent indicated very often spend more time with personal activities than in school activities, about 40 percent indicated sometimes did, over 50 percent rarely did and about 4 percent as well indicated never. The data shows that a considerable percent of teachers pay more attention on personal responsibilities than on official work at school.

This tendency seem to be common among teachers working in different schools, chi-square test showed no statistical significant difference (P>0.05) in spending more time in private activities rather than school activities among teachers working in different schools.

Over two fifth teachers indicated that always spent part of their time with students for behaviour management, a quarter indicated very often, about one third indicated sometimes and neither indicated very rare nor never. Thus most teachers spent part of time in issues related to behaviour management. However, chi-square test showed no statistical significant difference (P>0.05) in teachers locating and spending time for students' behaviour management in various schools.

Findings in table 4.15a also indicate that over two fifth teachers always reported at work places on time, two fifth often reported on time, few sometimes and rarely reported at school on time, and no one ever reported late. So over three-quarters (82.2%) of teachers kept time in reporting at work and less than quarter (17.8%) did not. This was a common practice among teachers, as chi-square test showed no significant difference (P>0.05) in reporting at work among teachers working in different schools.

Scheduling time for different activities; about one third indicated always, over two fifth indicated very often, few indicated sometimes and very rare. Although majority (75%) of teachers budgeted time for different activities. Chi-square test revealed statistical significant difference (P<0.05) in budgeting time for different activities among teachers in different schools.

In locating time for assisting students facing difficulties in learning, the same number, that is about one fifth indicated always, very often and very rare respectively. Two fifth indicated sometimes and few indicated never. This indication reveal that, students with learning difficulties lack assistance from their teachers since most teachers located no time for that. Chi-square test revealed significant variation ($P<0.05$) among teachers in locating and spending time for assisting students who face problems in learning.

Table 4.15b: Teachers' views on time management practices

Indicator	Responses					Total
	Never	Seldom	Some times	Very often	Always	
Spend part of time to develop students' competence $\chi^2 = 30.302$, df = 24 Pvalue = 0.175 NS	-	2 (7.1)*	15 (53.6)	5 (17.9)	6 (21.4)	28 (100)
Spend most of time located to teach students $\chi^2 = 37.904$, df = 24 Pvalue = 0.035 S	-	1 (3.6)	6 (21.4)	12 (42.9)	9 (32.1)	28 (100)
Spend time with students for extra academic help $\chi^2 = 35.293$, df = 32 Pvalue = 0.315 NS	2 (7.2)	1 (3.6)	10 (28.6)	8 (35.7)	7 (25.0)	28 (100)

* Figures in parentheses denote percent

NS = Not significant

S = Significant

Data in table 4.15b show that, more than one fifth of teachers indicated always spent part of time for developing students competence, less than one fifth indicated did it very often, more than half sometimes did it and less than a tenth indicated seldom. Although large number of respondents indicated sometimes the chi-square test showed no significant difference ($P>0.05$) in locating time for developing students competence among teachers from different schools.

One third of teachers indicated that they always spend most of the time located to teach students, over two fifth indicated very often did it, over one fifth sometimes did it, and less than a tenth indicated seldom. So many teachers reported to use most of located instructional time to teach students. However chi-square test indicated significant difference ($P<0.05$) in using most of the subjects' located instructional time among teachers of different secondary schools.

For students extra academic help, a quarter of teachers indicated always, over one third indicated very often, less than one third indicated sometimes, less than a tenth indicated seldom and never. The chi-square test revealed no significant variation ($P>0.05$) in locating and spending time for students' extra academic help among teachers working in different stations.

Table 4.16: Teachers' feelings about teaching

Indicator	Responses					Total
	Very seldom	Seldom	Moderate	Frequently	Very frequently	
Feel teaching very frequently or very seldom?	-	2 (7.1)*	3 (10.7)	12 (42.9)	11 (39.3)	28 (100)
$\chi^2 = 19.734$		df = 24			Pvalue = 0.712 NS	

* Figures in parentheses denote percent

NS = Not significant

Findings in table 4.16 indicate the extent to which teachers are motivated to teaching, hence locating most of their time in teaching-learning activities. About two fifth indicated that they feel teaching students very frequently, over two fifth indicated frequently, a tenth indicated moderate, and less than one tenth indicated seldom. Majority, over three-quarters (82.2%) showed positive attitude towards teaching their students. Chi-square test showed

no significant variation (P>0.05) in teaching attitude among teachers teaching in different schools.

Overall tables 4.15 and 4.16 reveal that teachers level of time management behaviour was high, however, a considerable number of teachers in different schools were not time conscious, never evaluated the way they use perishable resource time. They did not plan their daily activities and did not pay more attention in locating time for their primary role of developing students competence by assisting them to excel academically. These practices have caused a loss of significant amount of teaching-learning time, hence might have negatively influenced students' performance.

Ball (1983) warns that, if teachers have no desire to devote their time resource to learners, no curriculum package will have any lasting impact, due to the fact that, it is what teachers provide and what students spend in order to learn. It is evident that poor work environment, poor motivations to secondary schoolteachers, especially salaries and other remuneration have greater impact on time management in schools.

To raise an income, teachers have to involve in other activities. Gardening, local food vending as well as running tuition classes or seeking part-time teaching employment in other learning institutions are among the activities done by teachers during official work hours to raise their income. According to Chapman (1994) low pay scales force teachers to have supplemental employment in order to live, they hold outside employment which often conflict with their school responsibilities, leading to high rate of absenteeism. All these reduce to a greater extent effective utilisation of actual time planned and allotted for teaching learning to take place in normal classes.

4.3.3 Time management behaviour and its relationship with students' performance

The students' academic performance, that is students gross point average (GPA) was computed using Form Two National Examinations results. To obtain GPA the total subject score was divided by the number of subjects pursued. While students time management behaviour was tapped using Likert type of questions in which respondents rated themselves. Then cross-tabulation was applied to test association between time management behaviour and performance by gender, school name and location.

In studying the relationship between time management behaviour and performance, students were asked to give their opinions on whether their performance is affected by the way and extent at which instructional time is used. The YES and NO responses were collected and chi-square test was used to test significance of relationship.

Table 4.17: Students' opinions on the effects of time management behaviour on academic performance by gender, school ownership and location

		Academic performance affected by time utilisation?				Total	
		YES		NO			
		Number	%	Number	%	Number	%
Gender	Male	44	88.0	6	12.0	50	49
	Female	37	71.2	15	28.9	52	51
	Total	81	79.4	21	20.6	102	100
	$\chi^2 = 4.425$	df = 1		Pvalue = 0.035 S			
School ownership	Private	38	37.5	10	9.8	48	47.1
	Government	43	42.2	11	10.9	54	52.9
	Total	81	79.4	21	20.6	102	100
	$\chi^2 = 10.384$	df = 9		Pvalue = 0.320 NS			
School location	Urban	43	76.8	13	23.2	56	54.9
	Rural	38	82.6	8	17.4	46	45.1
	Total	81	79.4	21	20.6	102	100
	$\chi^2 = 0.713$	df = 2		Pvalue = 0.700 NS			

S = Significant

NS = Not significant

Results in table 4.17 indicate that over 3/4 of students had the opinion that the way time resource was utilised in their schools affected their performance, while 1/5 had the opposite opinion. More male (88.0%) students were affected compared to their counter parts (71.2%). The Chi-square test showed statistical significant difference ($P<0.05$) in the effect of time management on students' performance by gender.

Results indicate that more than three quarters of students agreed that time management in their schools adversely affected their performance, while only one fifth disagreed. Government school had highest percent of students whose academic performance was affected by the way time was used in their schools compared to private schools. However the chi-square test indicated no significant difference ($P>0.05$) in the effect of time misuse on students' performance among schools, and between government and private schools.

Findings in table 4.17 also indicate that time utilisation in schools adversely affected more students (82.6 %) in rural secondary schools compared to those in urban schools (76.8%). However, the chi-square test showed no statistical significant difference ($P>0.05$) in terms of students' academic performance being affected by the way time resource was spent in their schools between urban and rural located schools.

If time resource is wisely used in schools most of students are likely to perform better and vice versa is true was the major reason stated by 78.4 percent of students. 9.8 percent said

there is no relationship between time utilisation and ones academic performance, and 11.8 percent said wise use of time resource does not determine students' good performance.

4.3.4 The overall students' performance in secondary schools

The general performance for each sampled school was obtained from National Form Two Examinations results (2001).

Table 4.18: Overall secondary school students' performance

		Scores in % and Grade					
		0-20	**21-40**	**41-60**	**61-80**	**81-100**	**Total**
		F	**D**	**C**	**B**	**A**	
School ownership	Private	2(4.2)*	17 (35.4)	21(43.8)	8 (16.7)	-	48(47.1)
	Government	-	21(38.8)	21(38.8)	12(22.2)	-	54(52.9)
	Total	**2(1.9)**	**38(37.3)**	**42(41.2)**	**20(19.9)**	-	**102(100)**
	$\chi^2 = 471.462$		df = 522		Pvalue = 0.945 NS		
School location	Urban	2(1.9)	11(19.3)	25(43.9)	19(33.3)	-	57(55.9)
	Rural	-	27(60)	17(37.8)	1(2.2)	-	45(44.1)
	Total	**2(1.9)**	**38(37.3)**	**42(41.2)**	**20(19.6)**	-	**102(100)**
	Mean GPA = 46.1 'C' grade		$\chi^2 = 86.104$	df = 116	Pvalue = 0.983 NS		

* Figures in parentheses denote percent

NS = Not significant

Looking at the results in table 4.18 both private and government schools performed poorly in examinations since majority of candidates scored 'C' and 'D' grade in average, only about one fifth scored a 'B' in both cases. In general terms the academic performance of secondary schools was low as showed by majority candidates scored 'C' grade in average. Followed by 'D' grade in average, on top of that no candidate from any school had an average score of 'A' grade. Chi-square test revealed no statistical significant difference ($P<0.945$) in schools academic performance between private and government schools.

Majority rural school students scored 'D' grade followed by 'C' grade, in urban schools majority scored 'C' grade followed by 'B' grade. With this data urban schools performed

better than rural areas. However, chi-square test revealed no statistical significant difference (P>0.05) in academic performance between rural and urban schools school students.

These findings justify the argument that academic performance of secondary school students in Tanzania is relatively poor, time resource mismanagement is one of the contributing factors. The findings imply that both private and government schools have common time utilisation practices and behaviour that is why academic performance shows no significant difference. Thus improvement in time management practices and behaviour in schools may also improve students' academic performance.

4.3.5 Relationship between time management and academic performance

To study the relationship between time management and students' performance, students were asked to mention time spent in private studies per week, hours spent for group discussion in a week and time elapsing without academic activities in schools per week. Also subject teachers' time devoted to teach students was computed using timetables located time and actual utilised time per week. Findings were correlated with GPA.

The Pearson correlation coefficients were used to find out the relationship existing between students' performance and time spent by students in different activities. For instance private studies after class hours, hours students spent for private studies per week, time elapsing without academic work in schools and total time devoted by teachers to teach in the class per week.

Results in table 4.19 show computed Pearson correlation coefficients. Data in the table indicate significant (P<0.05) positive relationship (0.224*) between students' GPA and

time that students spend for private studies after class hours in a week. Show significant (P<0.05) positive correlation (0.283**) between students' GPA and hours that students spent for private studies per week.

Results in the table also denote negative association (-0.024) between students' GPA and time elapsing without academic work in schools, however the relationship is weak, it is not statistically significant (P>0.05). There is positive (0.003) relationship between GPA and hours that students spent for group discussion in a week, however the relationship is week and not statistically significant (P>0.05). Positive relationship (0.040) also prevails between students GPA and total time devoted by teachers to teach per week, but the relationship is not strong and not statistically significant (P>0.05).

Table 4.19: Relationship between time management and students' GPAs

Factor	Mean (Hours)		Student Gross Point Average
Student Gross Point Average	46.1	Pearson correlation	1.00
		Sign.(2-tailed)	-
		n	102
Time spent for private studies after class hours	2.9	Pearson correlation	0.224*
		Sign.(2-tailed)	0.023
		n	102
Hours students spent for group discussion in a week	8.6	Pearson correlation	0.003
		Sign.(2-tailed)	0.979
		n	102
Hours of private studies per week	18.1		0.283**
			0.004
		n	102
Time elapsing without academic work in schools	5.4	Pearson correlation	-0.024
		Sign.(2-tailed)	0.808
		n	102
Time devoted by teachers to teach students (students kept busy to learn)	26.4	Pearson correlation	0.040
		Sign.(2-tailed)	0.690
		n	102

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

These findings depict that the concept of time perishable resource consciousness and wise utilisation behaviour varied from one school to another, from individual student to another and from teacher to teacher. This might be due to the fact that they perceived time resource as an important variable in teaching-learning process in different ways. Kritner and Knicki (1992) and Lui chu (1999) support this, that time in our common sense is ordinarily understood and measured through events, occurrences and schedules. Thus different actors conceptualise, exploit, and utilise time resource basically basing on their social-cultural backgrounds. Over three-quarters of students (78.4%) were of the opinion that, the extent to which time resource was utilised in schools affected their academic performance.

Students' views also seem to agree with Carol's 1963 as modified by Hudgin in 1971 academic learning outcome model. In the model he stated that the degree of learning is a function of the amount of time the learner actually spends on the learning tasks to the total amount of time needed. Significant association ($P<0.05$) about views on effects of time management on academic performance has confirmed this by gender (table 4.17). However this model ignored other factors determining students performance such as learning materials, school environment, school facilities, learners readiness and willingness to engage actively in learning, number of teachers, teachers quality and the like which in this study have been considered.

4.4 Effect of gender on time management and students performance

In studying the effects of gender on time management and performance, students were asked to respond to questions about time use planning activities with options. Then cross tabulation was used to test association and differences between the two groups. The summary is presented in table 4.20.

Results in table 4.20 indicate that more female students 21.2 percent always and 30.8 percent very often made daily list of activities to accomplish compared to male students 7.0 percent who indicated always and 30 percent very often. Few female students (7.7%) never did it and no male students ever did it. However chi-square test showed no significant difference (P>0.05) between female and male students in making daily list of activities to accomplish.

Table 4.20: Time use-planning activities by gender (%)

Gender	Never	Very rare	Sometimes	Very often	Always	Total
	Make daily list of activities to accomplish?					
Males	-	22	34	30	14	49 (N=50)
Females	7.69	19.2	21.2	30.8	21.2	51 (N=52)
Total	**3.92**	**20.6**	**27.5**	**30.4**	**17.6**	**100 (N=102)**
	χ^2 = 6.218	df = 4		Pvalue = 0.183NS		
	Prioritize activities by importance?					
Males	-	22	32	30	16	49 (N=50)
Females	11.54	15.3	30.77	32.5	9.6	51 (N=52)
Total	**5.88**	**18.6**	**31.4**	**31.4**	**12.7**	**100 (N=102)**
	χ^2 = 7.255	df = 4		Pvalue = 0.123NS		
	Develop own objectives for a day and week?					
Males	2	14	22	40	22	49 (N=50)
Females	3.8	30.5	19.2	26.9	19.2	51 (N=52)
Total	**2.9**	**22.5**	**20.6**	**33.3**	**20.6**	**100 (N=102)**
	χ^2 = 4.972	df = 4		Pvalue = 0.290NS		
	Do you use time wisely?					
Males	-	14	32	42	12	49 (N=50)
Females	5.8	17.3	32.7	25	19.2	51 (N=52)
Total	**2.9**	**15.7**	**32.4**	**33.3**	**15.7**	**100 (N=102)**
	χ^2 = 6.126	df = 4		Pvalue = 0.190NS		
	Do you go to school late from holidays?					
Males	20	38	10	26	6	49 (N=50)
Females	15.4	32.7	25	21.2	5.8	51 (N=52)
Total	**17.6**	**35.3**	**17.6**	**23.5**	**5.9**	**100 (N=102)**
	χ^2 = 4.018	df = 4		Pvalue = 0.404NS		
	Do you locate time for studies when at home?					
Males	2	20	22	48	8	49 (N=50)
Females	-	26.9	30.8	26.9	15.4	51 (N=52)
Total	**0.98**	**23.5**	**26.5**	**37.3**	**11.8**	**100 (N=102)**
	χ^2 = 6.521	df = 4		Pvalue = 0.163NS		
	Do you finish given assignments on time?					
Males	-	10	40	36	14	49 (N=50)
Females	-	23.1	32.7	36.5	7.7	51 (N=52)
Total	-	**16.7**	**36.3**	**36.3**	**10.8**	**100 (N=102)**
	χ^2 = 3.933	df = 3		Pvalue = 0.269NS		

NS = Not significant

Majority of male students (32%) sometimes prioritised activities according to their importance and urgency, while majority female students (32.7%) did it very often. No male students who never prioritised activities, where as 11.5 percent female students never did it. However chi-square test showed no significant difference (P>0.05) between female and male students in prioritising activities by their importance and urgency.

In developing own objectives for a day or week 2.0 percent male students and about 4.0 percent female students indicated never. Also 22.0 percent males and 19.2 females indicated always option. Majority males (40%) indicated very often, while majority females (30.8%) indicated very rare. So more males than females developed own objectives for a day or week, however this study revealed no significant difference (P>0.05) in developing objectives for a day or week between male and female students.

In making self-assessment of time utilisation no male students indicated never, where as about 6.0 percent of female students indicated never. Less than 20 percent of male and female students indicated always. Majority males (42.0 %) and majority females (32.7%) indicated sometimes. Despite these variations chi-square test revealed no significant difference (P>0.05) between female and male students in time resource utilisation.

In terms of reporting to school late, 20.0 percent male students and 15.4 percent females students indicated never, 26.0 percent males and 21.2 percent females indicated very often. Both majority males 38.0 percent and majority females 32.7 percent indicated that rarely reported late to their respective schools. This study revealed no significant difference (P>0.05) in reporting late to school between male and female students. Thus no significant difference in learning time wastage by late reporting to school between male and female secondary school students.

Locating time for studies while at home; very few of male students indicated never. One-fifth males and about one third females indicated very rare. Over one fifth males and one third females indicated sometimes, about half of males and quarter of females indicated very often, less than a tenth of males and less than one fifth indicated very often. Majority male students (48.0 %) indicated very often while majority female students (30.8%) indicated sometimes. However chi-square test showed no significant difference (P>0.05) in locating time for studies between female and male students.

In finishing up given assignments on time neither male nor female students indicated never. Over a tenth of both male and female students indicated always. Majority (40.0%) males indicated sometimes while majority (36.5%) female students indicated very often. Despite these variations chi-square test revealed no significant difference (P>0.05) in completing assignments on time between female and male students.

These findings reveal that, although more male students appeared to be more time sensitive than female students are, the difference is insignificant. Both male and female students have common time management behaviour, hence academically equally affected by the way they perceive time and make use of it by planning activities against it.

Table 4.21: Students allocation and use of time for private studies per week

Hours of private studies per week	Gender				Total	
	Male		Female			
	Number	%	Number	%	Number	%
< 11	9	18	11	21.2	20	19.6
11-20	16	32	20	38.5	36	35.3
21-30	24	48	18	34.6	42	41.2
30^{+}	1	2	3	5.8	4	3.9
Total	50	49	52	50.9	102	100
$\chi^2 = 36.290$		df = 25			Pvalue = 0.067 NS	

NS = Not significant

Results in table 4.21 indicate students time location for private studies per week. In average students spent 23.3 hours for private studies in a week. Among male students about half of them spent 21 to 30 hours, one third of spent 11 to 20 hours, about one fifth spent less than 11 hours and less than a tenth spent over 30 hours for private studies per week. While about two fifth female students spent 11 to 20 hours, one third of them spent 21 to 30 hours, over one fifth spent less than 11hours less than one tenth spent over 30 hours per week for private studies. Majority (48.0 %) male students indicated spent 21 to 30 hours for private studies per week while their counterparts indicated 11 to 20 hours. This shows that male students located more time for private studies compared to female students. Despite variation of these findings, chi-square test revealed no significant difference ($P>0.05$) in amount of time that students located and spent for private studies per week between male and female students.

Data in table 4.17 indicate that 88.0 % of male students and 71.2 % of female students their performance was affected by the ways they spent their time in schools. This reveals that male students despite the fact that they allocated more time for their private studies, their performance was more affected compared to female students. The chi-square test revealed statistical significant difference ($P<0.05$) on the effect of time management behaviour on students' performance by gender.

The National Form Two Examinations Results (2001) were used to compare sampled students' performance by gender. Results in table 4.22 indicate that neither male nor female students had an excellent ('A' grade) performance in average. About a quarter of males and one fifth of female students scored in average a 'B' grade (very good). Majority (40.0 %) male students scored a 'C' grade (average), while majority (42.3%) female students scored

'C' grade (average) and 'D' grade (weak) in average respectively. About one third of male students scored 'D' grade in average. Very few students failed the examinations. Despite these variations chi-square test indicated no statistical significant difference (P>0.05) in performance (GPA) between male and female students, both male and female students were pooled at 'C' and 'D' grades.

Table 4.22: National examination results form two (2001)

Average score (GPA)	Grade	Male students		Female students		Total	
		Number	%	Number	%	Number	%
0 - 20	F	1	2	1	1.9	2	1.9
21- 40	D	17	34	22	42.3	39	38.2
41- 60	C	20	40	22	42.3	42	41.2
61- 80	B	12	24	7	13.5	19	18.6
81-100	A	-	-	-	-	-	-
Total		**50**	**49.2**	**52**	**50.8**	**102**	**100**
χ^2 = 58.202		df = 58		Pvalue = 0.468 NS			

A = Excellent, B = Very good, C = Average, D = weak, F = Fail

NS = Not significant

These findings then, imply that, in a whole there is no significant variation between male and female students in time management behaviour and examination performance. Though their opinion on the effects of time management on their performance showed statistical significance that male students are more affected than females perhaps because when answered questions they favoured themselves in rating. Using National Form Two Examinations Results (2001), cross tabulation with chi-square test revealed no significant difference in performance between male and female students. Thus male and female secondary school students have same level of academic performance.

4.5 Utilisation of instructional time for non academic activities and its impacts on students performance

To study the impact of utilisation of instructional time for non-academic activities, students were asked to state the amount of learning time used for non-academic activities and time elapsing without academic work per week in schools. Also such information was gathered through in-depth interviews with senior academic masters/mistresses, teachers on duty and school prefects. Then the average learning time in hours used for non-academic matters was computed, prior to finding the maximum and minimum time spent for non-academic matters using descriptive statistics. Then Cross tabulations were used to determine association of wasted learning time and students performance.

Findings in table 4.23 indicate that in most schools one to five hours elapsed in a week without academic work, this was indicated by majority of student respondents in both private and government schools. Two third of government schools students and about one third of private schools indicated five to nine hours tend to elapse without academic activities in a week in their schools. About half of students indicated one to five hours and over one third indicated five to nine hours, few indicated nine to thirteen and thirteen to seventeen hours. One to five hours elapsed more in private schools compared to government schools, while five to nine, nine to thirteen and thirteen to seventeen hours elapsed more in government schools than in private ones. This study has revealed statistical significant difference ($P<0.05$) in time elapsing without academic work between private and government secondary schools. Thus more learning time waste in government schools than in private schools.

Table 4.23: Learning time used for non-academic matters in schools

	Learning time elapsing without academic work in a week (in hours)				
School	**1 - 4.9**	**5 - 8.9**	**9 - 12.9**	**13 - 16.9**	**Total**
Private	29 (60.4)*	14 (29.2)	4 (8.3)	1 (2.1)	48 (47.1)
Government	23 (42.6)	22 (40.7)	7 (12.9)	2 (3.7)	54 (52.9)
Total	**52 (50.9)**	**36 (35.3)**	**11 (10.8)**	**3 (2.9)**	**102 (100)**
	χ^2 = 197.584		df= 135	Pvalue = 0.000S	
	Learning time used for non-academic activity in a week (in hours)				
Private	36 (75)*	7 (14.58)	3 (6.3)	2 (4.2)	48 (47.1)
Government	28 (51.9)	14 (25.9)	10 (18.5)	2 (3.7)	54 (52.9)
Total	**64 (62.7)**	**21 (20.6)**	**13 (12.8)**	**4 (3.9)**	**102 (100)**
	χ^2 = 224.956		df= 162	Pvalue = 0.001S	

* Figures in parentheses denote percent

S = Significant

Also findings in table 4.23 indicate that one to five hours of learning time were consumed by non academic activities, this was indicated by three quarters of students in private schools and over half of students in government schools. A quarter of students in government schools and over one-tenth in private schools indicated five to nine hours. Five to thirteen hours learning time was more used for non-academic activities in government schools than in private schools. The chi-square test showed significant difference ($P<0.05$) in learning time used for non-academic activities among schools.

Table 4.24: Learning time (in hours) spent for non-academic activities or elapsed without academic work per week

	Minimum	**Maximum**	**Mean**	**Standard deviation**
Learning time spent in non academic activities per week (in hours)	0.0 (0.0)*	25.0 (950)	5.3 (200.0)	4.2
Learning time elapsed without academic activities per week (in hours)	1.0 (38)	16.0 (608)	5.4 (205.9)	3.2

* Figures in parentheses denote time in hours in 38 learning weeks per one academic year.

Results in table 4.24 indicate that in average schools spent five hours of learning time per week for non-academic activities and at maximum spent twenty-five hours. For one

academic year that is 38 weeks of learning, in average 200 hours and maximum 950 hours of learning time were spent in non academic activities. Further more data in the table show that in average 5.4 hours and maximum 16 hours per week elapsed without academic work in schools.

These findings imply that a considerable amount of learning time is misused due to several factors including cancellation of teaching-learning cessions, teachers absenteeism, students whole classes punishments and the like. Several times per month normal timetable is postponed when schools engage in activities like cleanliness, school *baraza* or meetings, ceremonies and farm works (Noya, 1994). With this problem teachers can do no adequate syllabus coverage, if done partial teaching applies. Such practices ultimately affect students' content mastery since materials are just pumped or poured to students in order to complete the syllabus and not facilitating students content understanding, hence when summative evaluation is done a good number of students fail. The findings support Noya (1994) argument that, the amount of time devoted for academic activities is considered to be and important variable in effecting the teaching-learning process. The more the time for academic undertaking wastes the lesser the chance to cover the anticipated syllabus successfully. This leads to low performance.

The effect of learning time elapsed without academic work on students' examination performance was examined. Cross-tabulations were run and the association was assessed, results are summarised in table 4.25.

The results in table 4.25 indicate that majority students (63.7%) whose learning time elapsed without academic work ranged between 1 – 5 hours in a week scored a 'D' grade (43.1%), followed by 'C' grade (37%) and 'B' grade (20%), no 'A' grade and 'F' grades.

Where 5 – 9 hours of learning time elapsed without academic work, majority (45.8%) scored a 'C' grade followed by 41.7 percent who scored 'D' grade, 4.2 percent scored 'B' grade, 8.3 percent failed, and no one scored an 'A' grade in average.

Table 4.25: Effects of learning time elapsing without academic activities on Students' performance

Learning time (in ours) elapsing without academic activities in schools	Scores / GPA Grades					
	0-20 F	21-40 D	41-60 C	61-80 B	81-100 A	Total
1 – 4.9	-	28 (43.1)	24 (36.9)	13 (20)	-	65 (63.7)
5 – 8.9	2 (8.3)*	10 (41.7)	11 (45.8)	1 (4.2)	-	24 (23.5)
9 – 12.9	-	3 (33.3)	5 (55.6)	1 (11.1)	-	9 (8.8)
13 – 16.9	-	2 (50)	-	2 (50)	-	4 (3.9)
Total	**2 (1.9)**	**43 (42.2)**	**40 (39.2)**	**17 (16.7)**	-	**102 (100)**
χ^2 = 1037.013		df = 870		Pvalue = 0.000 S		

Pearson rank correlation (R) value = -0.024 Significant at (2- tailed) = 0.808

* Figures in parentheses denote percent

S = Significant

Where 9 – 13 learning time in a week elapsed, majority (55.5%) scored 'C' grade, 33.3 percent scored 'D' grade and 11.1 percent scored 'B' grade, no 'A' grade as well as failure scorers. While where 13 – 17 hours of learning time elapsed, 50.0 percent scored 'B' grade and 50.0 percent also scored 'D' grade in average. The chi-square test showed significant effect ($P<0.05$) of misused learning time on students' academic performance. Also Pearson rank correlation coefficient (R) of –0.024 denotes negative correlation between students' academic performance and learning time elapsing without academic work. Though the relationship is week, it is quite notable.

These research results imply that, in secondary schools a considerable and varied amount of time elapses academically unused. Experience shows that few serious students take that opportunity to hide themselves in places convenient to them for studies. They do that once they note subject teacher absenteeism. On the other hand majority of students use that opportunity to chart with friends, sleeping in dormitories or going home for day scholars. Thus the more the learning time elapses without academic activities in schools the poorer the academic performance for majority students becomes (Noya, 1994).

4.6 Determinants of secondary school students' performance

To establish relationship between time management and performance several factors were considered. According to Hudgins (1971), Boma (1980), Ishumi (1990) and Noya (1994), secondary school students performance is actually determined by a number of factors, thus effort to enhance better performance need to consider factors that directly or indirectly influence academic performance. In this view a multiple regression model was developed to show relationship between these factors and students' gross point average (GPA), the first hypothesis was tested.

Variables were number of teachers, students age, distance to school, misused time, time devoted by teachers to teach in a week, time spent by students for group discussion, learning environment, subjects teachers quality and subjects utilised instructional time. Students were asked to state precisely their age, distance to school (for day school students), learning time elapsing in a week, time spent for class lessons and group discussions. Also under given criteria students were asked to give scores to their subject teachers qualities and learning environment. Utilised instructional time per subject was computed using information from timetables and class journals. Number of teachers was

collected from heads of sampled schools. Gathered data for mentioned predictor variables were regressed to test causal – effect relationship with GPA. The relationship of the independent (predictor) variables with each other and GPA is summarised in table 4.26.

Table 4.26: Results of the regression analysis of the variables

	Y_i		$R^2 = 0.699$	
X_i	**B**	**Beta**	**t**	**Sig-t**
Constant	-274.223	-	-3.574	0.001
Number of teachers in schools	2.0337	1.280	2.749	0.008*
Students readiness (age)	1.719	0.121	1.591	0.116
Distance to school (km)	-0.500	-0.075	-0.686	0.495
Time elapsing without academic work	-0.161	-0.033	-0.394	0.694
Total time spent for class lessons in a week	4.306E-02	0.012	0.141	0.888
Total time spent for group discussions in a week	0.126	0.057	0.757	0.451
School learning environment	0.113	0.032	0.393	0.695
Subject teachers quality				
Civics	-8.47E-02	-0.040	0.4750	0.636
Kiswahili	-2.12E-02	-0.012	0.112	0.911
English	0.427	0.190	1.924	0.058
History	-0.179	-0.101	-0.045	0.299
Geography	-0.283	-0.159	-1.721	0.089
Mathematics	0.324	0.152	1.556	0.124
Chemistry	-0.277	-0.134	-1.072	0.287
Physics	8.412E-02	0.046	0.420	0.676
Biology	0.101	0.060	0.598	0.552
Students attendance	0.230	0.216	2.070	0.042*
Subject utilised instructional time				
Civics	65.345	0.578	3.045	0.003*
History	9.967	0.188	1.384	0.171
Geography	25.513	0.681	1.959	0.054
Biology	3.842	0.084	0.503	0.617
Physics	28.003	0.735	5.123	0.000*

X_i = Independent variable

Y_i = Gross point average (dependent variable)

R^2 = Coefficient of determination

* = Significant at 0.05 significance level

Results in table 4.26 show significant positive correlation between students' gross point average (GPA) and utilised instructional time for Civics and Physics, number of teachers as well as students' attendance. Utilised instructional time for History, Geography and Biology, students readiness (age), qualities of teachers in Physics, English, Mathematics and Biology; school learning environment, time spent by students in group discussions per week, and total time spent for class lessons in a week positively correlated with GPA but were not significant. Where as teachers qualities for Kiwahili, Civics, History, Chemistry and Geography; time elapsing without academic activities, and distance to school had a negative correlation with GPA but not significant.

The multiple coefficient of determination R^2, obtained was 0.699. This means that the above mentioned independent variables accounted for 69.9 percent of the variation in the dependent variable in the model and the rest 30.1 percent is accounted by other factors not included in the model. Since R^2 is high, among other variables, the listed independent variables are the ones determining the dependent variable (GPA).

The asterisks indicate variables that are statistically significant predictors of students' examination performance. The regression coefficient allows determination of relative importance of the predictors that are shown by the size of regression coefficients. Thus best predictors of students performance in this study are Civics utilised instructional time (B=65.3), Physics utilised instructional time (B=28), number of teachers in schools (B=2.03) and students attendance (B=0.2). Other predictor variables denoted no significant influence on students' performance. However the twenty-two predictor variables accounted for 69.9% of the variance in performance scale (R=0.831 and R^2=0.699).

Predictor variables which had the greatest positive standardised regression coefficients (beta weights), were number of teachers in schools (1.3), followed by physics utilised instructional time (0.7), Geography utilised instructional time (0.7), and Civics utilised instructional time (0.6). Others are students' attendance (0.22), English teachers' quality (0.19); History utilised instructional time (0.2), Mathematics teachers' quality (0.1), students' readiness (0.1), and Biology utilised instructional time (0.1). Biology teachers quality (0.1), total number of hours spent by students for group discussions in a week (0.1), physics teachers quality (0.1), school learning environment (0.03) and total amount time students spent for class lessons in a week (0.01). The rest had negative beta weights; Kiswahili teachers quality (-0.01), time elapsing without academic work (-0.03), Civics teachers quality (-0.04), distance to schools (-0.1), History teachers quality (-0.1), Chemistry teachers quality (-0.1) and Geography teachers quality (-0.2).

Omitted variables due to collinearity test were time spent for laboratory experiments, learning time consumed by morning cleanliness and school parade, learning time spent for extracurricular activities, time spent for private studies in a week, school facilities, learning materials, and utilised instructional time for Kiswahili, English, Chemistry and Mathematics. Equations for linear regression see appendix 3.

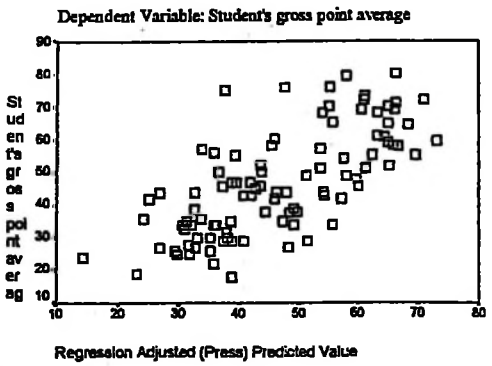

Figure 3: Scatter plot for variables in regression model

Figure 3: Shows good fit of independent variables against dependent in the regression line.

These research findings imply that the mentioned independent variables determine students' performance at different amount of unit change. A unit changes in a particular independent variable results into an increase or decrease in students gross point average (GPA) by a particular unit of change. For example the number of teachers in schools coefficient 2.0337, means that a unit increase in the number of teachers in schools resulted into an increase in students GPA by an amount of 2.0337.

Also a unit increase in students attendance resulted into an increase of students GPA by amount of 0.230. Further more, the coefficient for time elapsed in schools without academic activities –0.161 means that a unit increase in time elapsing without academic activities resulted into decrease of students GPA by an amount of –0.161 and so forth. These findings are similar to Boma (1980) and Noya (1994) who found that students performance is determined by school learning environment, quality of teachers, absenteeism, learning resources, motivation and time resource devoted by teachers to teach and students to learn.

Thus different factors determine students performance at different amount of unit changes, positively or negatively. Efforts made towards improving students' performance have to put into account of different variables influencing students' performance directly or indirectly, positively or negatively.

4.7 Time management and performance among students who study in urban schools and those studying in schools located in rural areas

To study time management behaviours and practices and students academic performance by school location, 102 students and 28 teachers were asked to respond to Likert type of questions made to tape information on schools, teachers and students time management behaviours. Also students from both urban and rural secondary schools were asked to give their views if their academic performance was influenced by the way time was spend in their schools and the way themselves spent it. Then cross tabulation was used to compare the results by school location. All schools outside Dodoma municipal area in this study are considered as located in rural areas regardless of location at the core of the district.

4.7.1 Time management behaviour in schools by their location

Criteria like teachers' absenteeism, periods cancellation, subject teachers entering the class late and getting out of the class before the end of the period. Doing punishment during learning time and doing non academic activities while other students are learning in the class were the indicators used in studying time utilisation behaviour in schools.

Results in table 4.27 shows that majority students (35.7%) of urban schools indicated very rare on occurrence of subject teacher absenteeism, while majority students (45.7%) of rural schools indicated very often on the event. However, chi-square test revealed no statistical significant difference ($P>0.05$) in subject teachers' absenteeism between urban and rural secondary schools.

Table 4.27: Students' responses on time management behaviour in schools (%)

School location	Indicator					
	Subjects teacher absent					
	Never	Very rare	Sometimes	Very often	Always	Total
Urban	-	35.7	33.9	28.6	1.8	54.9 (N= 56)
Rural	2.2	13.0	36.9	45.7	2.17	45.1 (N=46)
Total	**0.98**	**25.49**	**35.3**	**47**	**1.9**	**100 (N=102)**
	χ^2 = 9.796	df = 8	Pvalue = 0.280 NS			
	Periods cancelled without genuine reason					
Urban	14.3	33.9	25	26.8	-	54.9 (N= 56)
Rural	4.3	23.9	36.9	34.8	-	45.1 (N=46)
Total	**9.8**	**29.4**	**30.4**	**30.4**	-	**100 (N=102)**
	χ^2 = 7.087	df = 6	Pvalue = 0.313 NS			
	Subject teacher enter the class late					
Urban	1.8	33.9	35.7	28.6	-	54.9 (N= 56)
Rural	8.7	17.4	32.6	32.6	8.7	45.1 (N=46)
Total	**4.9**	**26.5**	**34.3**	**30.4**	**3.9**	**100 (N=102)**
	χ^2 = 14.327	df = 8	Pvalue = 0.137 NS			
	Subject teacher get out of the class before the end of the period					
Urban	8.9	35.7	35.7	19.6	-	54.9 (N= 56)
Rural	13.0	17.4	36.9	30.5	2.2	45.1 (N=46)
Total	**10.8**	**27.5**	**36.3**	**24.5**	**0.9**	**100 (N=102)**
	χ^2 = 7.743	df = 8	Pvalue = 0.459 NS			
	Periods cancelled due to emergencies					
Urban	1.8	32.1	48.2	14.3	3.6	54.9 (N= 56)
Rural	-	26.1	30.4	34.8	8.7	45.1 (N=46)
Total	**0.9**	**29.4**	**40.2**	**23.5**	**5.9**	**100 (N=102)**
	χ^2 = 11.210	df = 8	Pvalue = 0.190 NS			
	Doing punishment while others learning					
Urban	3.57	33.93	14.28	37.37	10.71	54.9 (N= 56)
Rural	2.17	19.56	30.45	17.39	30.43	45.1 (N=46)
Total	**2.94**	**27.45**	**21.57**	**28.43**	**19.61**	**100 (N=102)**
	χ^2 = 17.176	df = 8	Pvalue = 0.028 S			
	Doing non academic activities while others studying					
Urban	8.9	45.1	33.9	14.3	3.6	54.9 (N= 56)
Rural	6.5	39.1	34.8	8.7	10.9	45.1 (N=46)
Total	**7.8**	**39.2**	**34.3**	**11.8**	**6.9**	**100 (N=102)**
	χ^2 = 4.446	df = 8	Pvalue = 0.815N S			

NS = Not significant

S = Significant

For period cancellation, majority students (33.9%) from urban indicated very rare, while majority students (36.9%) from rural schools indicated sometimes. However, chi-square test denoted no significant difference (P>0.05) in period's cancellation without genuine reason between urban and rural located secondary schools.

Subject teachers entering in the class late; in this indicator greatest percent (35.7 %) urban students indicated sometimes, where as greatest percent (32.6%) of students from schools located in rural areas indicated sometimes and very often respectively. Despite these differences, chi-square test signified no significant difference (P>0.05) in teachers entering classrooms late for teaching, between urban and rural located secondary schools.

Majority students (35.7%) studying in schools located in urban areas indicated that subject's teachers in their schools very rare and sometimes respectively had a tendency of getting out of the classroom before the end of the period. While largest percent (36.7%) of students studying in schools located in rural areas indicated sometimes. However, chi-square test revealed no significant difference (P>0.05) in that kind of subject teachers' behaviour between urban and rural located secondary schools.

For cancellation of periods due to emergencies; urban largest percent (48.2%) indicated sometimes, rural largest percent (34.8%) indicated very often. Chi-square test denoted no statistical significant difference (P>0.05) in cancellation of periods due to emergencies between urban and rural located secondary schools.

In doing punishment while other students learn in the class; largest percent (37.5%) of urban students indicated very often, while largest percent (30.4%) of rural school students indicated sometimes and always respectively. With this variation, chi-square test showed significant difference (P<0.05) in the tendency of some students doing punishment while others learn in the class, between urban and rural located secondary schools. Students in rural located secondary schools were more affected by that school practice compared to students in urban located schools.

In terms of doing non academic activities while others learn in the class; large percent (39.3%) of students respectively both in urban and rural schools indicated very rare. The chi-square test revealed no significant difference (P>0.05) in that behaviour between urban and rural located secondary schools.

These research findings imply that, time management behaviour and practices do not vary much between urban and rural located secondary schools, except punishment as an activity that consumes part of learning time in schools. This means that in school located in rural area there are many out door activities that students are assigned to do in a form of punishments like *shamba* works, gardening, bush clearing, slashing, looking after animals, watering plants and the like compared to schools located in urban areas. Otherwise thus, time management practices and behaviours are similar between schools in urban areas and those in rural areas. Though not significant the findings support Noya (1994) argument that, that a considerable amount of time for academic undertaking is wasted in schools since very often normal schedules in a month are postponed for non academic activities.

4.7.2 Teachers time management behaviour by school location

Variables like reporting at work on time, spending most of time located for teaching, assisting students with learning difficulties, scheduling activities, developing students competence, involvement in personal activities, work performance and task clearing were important indicators used to tape teachers time management behaviours at work centres, that is secondary schools located both in rural and urban areas.

Results in table 4.28a indicate that largest percent (43.8%) of urban school teachers and 50.0 percent of rural school teachers indicated that always reported at work place on time, 37.5 percent of urban and 41.7 percent of rural indicated very often reported on time. Few

teachers from urban and rural schools indicated sometimes reported at work on time However, chi-square test revealed no significant difference (P>0.05) in reporting at work on time between urban and rural secondary schools teachers.

Table 4.28a: Teachers' responses on time management behaviour by school location (%)

School location	Indicator					Total
	Never	Very rare	sometimes	Very often	Always	
	Report at work place on time?					
Urban	-	6.3	2.5	37.5	43.8	57.1 (N= 16)
Rural	-	-	16.7	41.7	50	42.9 (N=12)
Total	-	3.6	14.3	39.3	42.9	100 (N = 28)
	χ^2 = 0.871	df = 3	Pvalue = 0.833 NS			
	Do you find time to assist students facing difficulties in learning?					
Urban	12.5	18.8	31.3	31.3	6.3	57.1 (N= 16)
Rural	-	16.7	50	-	33.3	42.9 (N=12)
Total	7.1	17.9	39.3	17.9	17.9	100 (N = 28)
	χ^2 = 8.697	df = 4	Pvalue = 0.069 NS			
	Do you schedule your time for test, meetings, notes making and the like?					
Urban	-	12.5	25	37.5	25	57.1 (N= 16)
Rural	-	8.3	-	58.3	33.3	42.9 (N=12)
Total	-	10.7	14.3	46.4	28.6	100 (N = 28)
	χ^2 = 3.919	df = 3	Pvalue = 0.270 NS			
	Spend more time with personal activities than schoolwork?					
Urban	-	68.8	31.3	-	-	57.1 (N= 16)
Rural	8.3	33.3	50	8.3	-	42.9 (N=12)
Total	3.6	53.6	39.3	3.6	-	100 (N = 28)
	χ^2 = 4.886	df = 3	Pvalue = 0.180 NS			
	Fail to perform work nicely due to shortage of time?					
Urban	6.3	42.9	37.5	31.3	-	57.1 (N= 16)
Rural	-	33.3	33.3	25	8.3	42.9 (N=12)
Total	3.6	28.6	35.7	28.6	3.6	100 (N = 28)
	χ^2 = 2.377	df = 4	Pvalue = 0.667 NS			
	Clear all the work on the table?					
Urban	-	18.8	50	18.8	12.5	57.1 (N= 16)
Rural	-	-	66.7	33.3	-	42.9 (N=12)
Total	-	10.7	57.1	25	7.1	100 (N = 28)
	χ^2 = 4.667	df = 3	Pvalue = 0.198 NS			
	Write work plan each day?					
Urban	-	6.3	25	43.8	25	57.1 (N= 16)
Rural	-	-	25	50	25	42.9 (N=12)
Total	-	3.6	25	46.4	25	100 (N = 28)
	χ^2 = 0.808	df = 3	Pvalue = 0.848 NS			
	Avoid interruptions of academic activities in school?					
Urban	6.3	18.8	43.8	25	6.3	57.1 (N= 16)
Rural	-	-	66.7	16.7	16.7	42.9 (N=12)
Total	3.6	10.7	53.6	21.4	10.7	100 (N = 28)
	χ^2 = 4.589	df = 4	Pvalue = 0.332 NS			
	Do you evaluate use of 24 hours of a day					
Urban	-	25	37.5	18.8	18.8	57.1 (N= 16)
Rural	-	25	25	41.7	8.3	42.9 (N=12)
Total	-	25	32.1	28.6	14.3	100 (N = 28)
	χ^2 = 2.115	df = 3	Pvalue = 0.549NS			
	Miss to teach students?					
Urban	-	93.8	-	6.3	-	57.1 (N= 16)
Rural	-	83.3	-	16.7	-	42.9 (N=12)
Total	-	89.3	-	10.7	-	100 (N = 28)
	χ^2 = 0.778	df = 1	Pvalue = 0.378NS			

NS = Not significant

S = Significant

One third percent of urban schoolteachers indicated very often and sometimes respectively located time to assist students facing difficulties in learning, while half of rural schoolteachers indicated sometimes locate time to assist students facing difficulties in learning. Less than a tenth of urban schoolteachers and a third of rural indicated always. Also one third of urban teachers only indicated very often, less than one fifth of both urban and rural schoolteachers indicated very rare. However, chi-square test showed no significant difference (P>0.05) in locating time to assist students facing difficulties in learning between urban and rural secondary schools teachers.

In scheduling activities for effective time utilisation; both majority (37.5%) of urban schoolteachers and (58.3 %) rural schoolteachers indicated very often. A quarter of urban and a third of rural indicated always, Over a tenth of urban and less than one tenth of rural indicated very rare. Despite this variation, this study revealed no significant difference (P>0.05) in scheduling activities for effective time utilisation between urban and rural secondary schools teachers.

Majority (68.7%) urban schoolteachers indicated very rare spent more time with personal activities than school work, while majority (50.0%) rural schoolteachers indicated sometimes spent more time with personal activities than school work. About one third of urban school teachers indicated sometimes and also one third of rural indicated very rare. Few rural schoolteachers only indicated very often and never respectively. Neither urban nor rural schoolteachers indicated always. Chi-square test showed no significant difference (P>0.05) in spending more time with personal activities than schoolwork between urban and rural secondary schools teachers.

Over one third of urban schoolteachers and one third of rural schoolteachers indicated sometimes failed to perform work nicely due time constraints. Also about one third of urban and one third of rural schoolteachers indicated very rare and one third as well of urban schoolteachers indicated very often. Few of rural schoolteachers only indicated always fail to perform work nicely due to shortage of time. However, chi-square test denoted no significant difference (P>0.05) in failure to perform work nicely due to shortage of time between urban and rural secondary schools teachers.

In terms of task clearance, majority (50.0%) urban and (66.7%) rural indicated sometimes. Very often was indicated by 33.3 percent of rural and 18.8 percent of urban. Neither urban nor rural schoolteachers indicated never. However this study found no significant difference (P>0.05) in tasks clearing between urban and rural secondary schools teachers.

Writing work plan for each day majority (43.8%) urban schoolteachers and rural schoolteachers (50.0%) indicated very often, and 25.0 percent urban and rural schoolteachers indicated always and sometimes respectively. The chi-square test revealed no significant difference (P>0.05) in activities against time planning between urban and rural secondary schools teachers.

In avoiding interruptions of academic activities at school over two fifth urban school teachers and nearly half of rural school teachers indicated sometimes, while less than a tenth of urban and less than a fifth of rural school teachers indicated always. Chi-square test showed no significant difference (P>0.05) in avoidance of interruptions of academic activities between urban and rural secondary schools teachers.

Majorities 41.7 percent of teachers in rural secondary schools indicated very often evaluated how they spent the 24 hours of a day, while majorities 37.5 percent of urban schoolteachers indicated sometimes did it. 18.8 percent urban and 8.3 rural schoolteachers indicated always, neither rural nor urban teachers indicated never. Chi-square test denoted no significant difference (P>0.05) in 24 hours time use evaluation between urban and rural secondary schools teachers.

Over three-quarters of both urban and rural schoolteachers indicated that very rare missed to teach their students. Less than one fifth of urban and rural schoolteachers indicated very often missed to teach their students and neither indicated never, sometimes nor always missed teaching students. This study revealed no significant difference (P>0.05) in teachers' tendency of missing to teach students between urban and rural secondary schools teachers.

Also data in table 4.28b show that large percent (62.5%) of urban schoolteachers indicated very often spent most of subjects located time for teaching, large percent (50%) of rural school teachers indicated always spent most of subjects allocated time for teaching. About 19 percent of urban schoolteachers indicated always, 33.3 percent of rural schoolteachers indicated very rare, 6.3 percent of urban only indicated never and neither urban nor rural schoolteachers indicated sometimes. This study revealed no significant difference (P>0.05) in using most of subjects' located time for teaching between urban and rural secondary schools teachers.

Table 4.28b: Teachers' responses (%) on time management behaviour by school Location (different options)

School location	Indicator					Total
	Spend most of subjects' allocated time to teach students?					
	Seldom	often	sometimes	Very often	Always	
Urban	6.5	12.5	-	62.5	18.8	57.1
Rural	-	33.3	-	16.7	50	42.9
Total	**3.6**	**21.4**	**-**	**42.9**	**32.1**	**100**
	χ^2 = 7.583	df = 3		Pvalue = 0.055 NS		
	Spend part of time to develop students' competence by sharing evaluation with them?					
Urban	12.5	-	43.8	25	18.8	57.1
Rural	-	-	66.7	8.3	25	42.9
Total	**7.14**	**-**	**15(53.57)**	**17.9**	**21.4**	**100**
	χ^2 = 3.364	df = 3		Pvalue = 0.339 NS		
	Don't attend the class for teaching?					
	Never	**Seldom**	**Often**	**sometimes**	**Always**	
Urban	-	81.3	12.5	6.3	-	57.1
Rural	-	66.7	33.3	-	-	42.9
Total	**-**	**75**	**3.6**	**3.6**	**-**	**100**
	χ^2 = 2.333	df = 2		Pvalue = 0.311 NS		
	Spend time with students for extra academic help?					
Urban	12.5	-	31.3	31.3	25	57.1
Rural	-	8.33	25	41.7	25	42.9
Total	**7.1**	**3.6**	**28.6**	**35.7**	**25**	**100**
	χ^2 = 3.135	df = 4		Pvalue = 0.535NS		
	Spend time with students for behaviour management?					
Urban	-	-	31.3	50	37.5	57.1
Rural	-	-	16.7	25	58.3	42.9
Total	**-**	**-**	**25**	**28.6**	**46.4**	**100**
	χ^2 = 1.318	df = 2		Pvalue = 0.517 NS		

NS = Not significant

In developing students competence; majority (43.8%) of urban schoolteachers and rural schoolteachers (66.7%) indicated sometimes. About 20.0 percent of urban and 25.0 percent of rural indicated always. Also 25.0 percent of urban and 8.3 percent of rural indicated very often. Few urban schoolteachers only indicated never. Despite this variation, the chi-square test showed no significant difference (P>0.05) between urban and rural secondary schools teachers in spending time to develop students' competence by sharing evaluation with them.

Over three-quarters of urban schoolteachers and over a half of rural schoolteachers indicated seldom did not attend classes for teaching. Over a tenth of urban and one third of rural schoolteachers indicated often did not attend classes for teaching. Less than a tenth of urban schoolteachers only indicated sometimes and neither urban nor rural teachers indicated either never or always. Chi-square test showed no significant difference ($P>0.05$) between urban and rural secondary schools teachers in attending classes for teaching.

In locating and spending time for students extra academic help a quarter of urban and rural schoolteachers respectively indicated always. One third of urban and over two fifth of rural indicated sometimes. Also one third of urban and quarter of rural indicated often. Below one tenth of rural only indicated seldom and over one-tenth urban teachers only indicated never. However, chi-square test showed no significant difference ($P>0.05$) between urban and rural secondary schools teachers in spending time for students' extra academic help.

These findings imply no existence of differences in time management behaviour between teachers teaching in urban schools and those teaching in rural schools. For example in reporting at work majority 43.8 percent and 50.0 percent for urban and rural respectively indicated always, for scheduling activities majority for both rural and urban indicated very often. In developing students competence, in clearing work on the table, in avoiding interruptions both rural and urban majority school teachers indicated sometimes. Thus teachers in urban and rural located schools behave in similar ways in terms of managing time as an important resource in schools.

4.7.3 Students time management behaviour by school location

Indicators like wise time use, making daily list of activities to accomplish, prioritising activities, objective development, assignments completion, reporting to school from holidays and clearing table for assignment were used to tape information on students time management by school location, when were asked to respond to Likert type of questions.

Results in table 4.29 indicate that majority students (37.5%) of urban school students very often used their time wisely while majority students (41.3%) rural school students indicated sometimes used time resource wisely. About 20 of urban and 13.0 percent of rural school students indicated always used time wisely. About 2.0 percent of urban and 1.0 percent rural indicated never. Chi-square test revealed no significant difference ($P>0.05$) in using time wisely between urban and rural secondary schools students.

About 20 percent for both urban and rural students respectively indicated always prepared daily list of activities to accomplish majority (33.9%) urban indicated very often and majority (30.4%) of rural indicated sometimes. However, chi-square test denoted no significant difference ($P>0.05$) in making daily list of activities to accomplish between urban and rural secondary schools students.

Table 4.29: Students' responses on time management behaviour by school location

School location	Indicator					
	Never	Very rare	Sometimes	Very often	Always	Total
	Do you use time wisely?					
Urban	1.8	17.9	25	37.5	17.9	54.9 (N=56)
Rural	4.4	13.0	41.3	28.3	13.0	45.1 (N=46)
Total	2.9	15.7	32.4	33.3	15.7	100 (N=102)
	χ^2 = 5.653		df = 8	Pvalue = 0.686 NS		
	Do you make daily list of activities to accomplish?					
Urban	5.4	17.9	25	33.9	17.9	54.9 (N=56)
Rural	2.2	23.9	30.4	26.1	17.4	45.1 (N=46)
Total	9.9	20.6	27.5	30.4	17.7	100 (N=102)
	χ^2 = 4.391		df = 8	Pvalue = 0.820 NS		
	Have daily arrangement of activities?					
Urban	3.6	14.3	25	33.9	23.2	54.9 (N=56)
Rural	-	17.4	36.9	36.9	13	45.1 (N=46)
Total	1.9	15.7	35.3	35.3	18.6	100 (N=102)
	χ^2 = 6.099		df = 8	Pvalue = 0.636 NS		
	Do you prioritize activities by importance and urgency?					
Urban	8.9	17.9	23.2	37.5	12.5	54.9 (N=56)
Rural	2.8	19.7	41.3	23.9	13	45.1 (N=46)
Total	5.9	18.6	31.4	31.4	12.7	100 (N=102)
	χ^2 = 1.7.788		df = 8	Pvalue = 0.454 NS		
	Develop own objectives for a day and week?					
Urban	3.6	17.9	19.6	39.3	19.6	54.9 (N=56)
Rural	2.2	28.3	21.7	26.1	21.7	45.1 (N=46)
Total	2.9	22.5	20.6	33.3	20.6	100 (N=102)
	χ^2 = 6.670		df = 8	Pvalue = 0.573 NS		
	Do you finish assuagements on time?					
Urban	-	14.3	28.6	50	7.1	54.9 (N=56)
Rural	-	19.7	45.7	19.6	15.2	45.1 (N=46)
Total	-	16.7	36.3	36.3	10.8	100 (N=102)
	χ^2 = 11.824		df = 6	Pvalue = 0.066 NS		
	Fail to work nicely due to shortage time					
Urban	-	30.4	50	19.6	-	54.9 (N=56)
Rural	2.2	13	43.5	28.3	13	45.1 (N=46)
Total	0.9	22.5	47.1	23.5	5.9	100 (N=102)
	χ^2 = 15.973		df = 8	Pvalue = 0.043 S		
	Do you avoid interruption of study time?					
Urban	1.8	14.3	35.7	39.3	8.9	54.9 (N=56)
Rural	-	21.7	36.9	30.4	10.9	45.1 (N=46)
Total	0.9	17.6	36.3	35.3	9.8	100 (N=102)
	χ^2 = 4.070		df = 8	Pvalue = 0.851 NS		
	Do you analyze how you use your time?					
Urban	10.7	17.9	26.8	26.8	17.8	54.9 (N=56)
Rural	10.9	21.7	23.9	28.3	13	45.1 (N=46)
Total	10.8	19.6	25.5	27.5	15.7	100 (N=102)
	χ^2 = 3.469		df = 8	Pvalue = 0.902 NS		
	Do you go to school late from holidays?					
Urban	10.7	42.9	16.1	25	5.4	54.9 (N=56)
Rural	26.1	26.1	19.6	21.7	6.5	45.1 (N=46)
Total	17.6	35.3	17.6	23.5	5.9	100 (N=102)
	χ^2 = 9.289		df = 8	Pvalue = 0.318NS		
	Do you clear table for assignments?					
Urban	1.8	21.4	25	46.4	5.4	54.9 (N=56)
Rural	2.2	19.7	39.1	30.4	8.7	45.1 (N=46)
Total	1.9	20.6	31.4	39.2	6.9	100 (N=102)
	χ^2 = 5.503		df = 8	Pvalue = 0.703 NS		

NS = Not significant

S = Significant

In prioritising activities by importance large percent (37.5%) of urban school students indicated very often, while 41.3 percent of rural school students indicated sometimes. Very few urban and rural school students indicated never. However, this study showed no significant difference (P>0.05) between urban and rural secondary schools students in prioritising activities according to their importance.

In doing given assignment large percent (50.0 %) of urban school students indicated very often finished assignment on time, majority (45.7%) rural school students indicated sometimes. Few urban and rural school students indicated always finished doing assignments on time and neither rural nor urban indicated ever. Chi-square test revealed no significant difference (P>0.05) between urban and rural secondary schools students completing assignments on time.

Over a tenth of urban and less than one tenth of rural school students indicated always failed to work nicely due to shortage of time. About one fifth of urban and one third of rural indicated very often failed to work nicely due to shortage of time. Half of urban and over two fifth of rural indicated sometimes failed. About one third of urban and more than one tenth of rural indicated very rare, Very few of rural only indicated never. Majority of both urban and rural (50.0%) and (43.5%) respectively indicated sometimes failed to work nicely due to shortage of time. More urban school students failed to work nicely due to shortage of time than rural school students. Chi-square test revealed significant difference (P<0.05) between urban and rural secondary schools students in failing to work nicely due to shortage of time.

In avoiding interruption of learning time, majority (39.3%) of urban school students indicated very often, while majority (40.0%) of rural school students indicated sometimes. This was followed by 35.7 percent of urban school students who indicated sometimes and 30.4 percent of rural that indicated very often. About 10.0 percent of both urban and rural indicated always. Despite of this variation, chi-square test showed no significant difference ($P>0.05$) between urban and rural secondary schools students in avoiding interruption of learning time.

Over a tenth of urban and over a fifth of rural school students indicated never reported to school late from holidays, Over two fifth of urban and more than one fifth of rural indicated very rare reported late. About one fifth both of urban and rural school students indicated sometimes reported late. Quarter of urban and over one fifth of rural indicated very often, while less than one tenth of both urban and rural indicated always reported late at their school from holidays. However, this study revealed no significant difference ($P>0.05$) between urban and rural secondary schools students in reporting to school from holidays.

These findings like that of teachers imply existence of common time management practices and behaviours between rural and urban secondary school students with an exception of failing to work nicely due to time constraints which prevails more to urban school students compared to rural school students. In a whole same level and similar time management behaviour prevails in secondary school students, regardless of being located in urban or rural areas.

4.7.4 Effects of time management on students' academic performance by school location

To study the effect of time management on students' performance by school location, students both in rural and urban secondary schools were asked to give their views on the issue. Then cross tabulation was employed to assess association and test the significance.

Findings in table 4.30 indicate that greater percent (76.8%) of urban school students indicated 'Yes' and the rest 23.2 percent indicated 'NO'. Also for rural school students 82.6 percent indicated 'Yes' while 17.4 percent indicated 'NO'. So majority students for both rural (82.6%) and urban (76.8 %) schools agreed that time perishable resource management in their schools adversely affected their academic performance. Despite the fact that more rural school students than urban school students indicated 'Yes', chi-square test revealed no significant difference (P>0.05) in the effect of time management on students' academic performance between urban and rural secondary schools students.

Table 4.30: Students' views on the effects of time management on academic performance

School location	Is your academic performance affected by time utilisation in school?					
	YES		NO		Total	
	Number	%	Number	%	Number	%
Urban	43	76.8	13	23.2	56	54.9
Rural	38	82.6	8	17.4	46	45.1
Total	**81**	**79.4**	**21**	**20.6**	**102**	**100**
$\chi^2 = 0.713$		df = 2		Pvalue = 0.700 NS		

NS = Not significant

These findings imply that both urban and rural secondary school students are generally equivalently affected academically by the way time resource is utilised in schools, that is why performance in national examinations is almost similar (table 4.31).

4.7.5 Students academic performance by school location

To study secondary school students' academic performance National form two examination results (2001) were used. The results were obtained from heads of school offices and senior school academic deans' offices. Student respondents subjects scores were recorded. Total and average (GPA) for every respondent were computed and graded prior to comparative analysis.

Table 4.31: Form two national examination results (2001) by school location

Students GPA and grade		School location					
		Urban		Rural		Total	
		Number	%	Number	%	Number	%
0 - 20	F	2	3.6	-		2	1.9
21 - 40	D	11	19.6	28	17.4	39	38.2
41 - 60	C	24	42.9	17	36.9	41	40.2
61 - 80	B	19	3.9	1	2.2	20	19.6
81 - 100	A	-		-		-	
Total		**56**	**54.9**	**46**	**45.1**	**102**	**100**

$\chi^2 = 86.104$ df = 116 Pvalue = 0.983 NS

NS = Not significant

F = Fail D = Weak C =Average B = Good A = Excellent

Findings in table 4.31 indicate that, majority student in both urban and rural schools, 42.9 percent and 36.9 percent respectively scored 'C' grades. More students 33.9 percent of urban secondary schools than rural school students 2.2 percent respectively scored 'B' grades. Also more students in urban schools (19.6%) than those in rural schools (17.4%)

scored 'D' grades. No student in rural schools failed the examinations while 3.4 percent of students in urban schools failed. Further more no student from either rural or urban schools had an average score of 'A' grade. Though more students in urban schools compared to those in rural schools scored 'B' grades and more students in urban schools failed compared to those in rural schools. The chi-square test revealed no significant difference ($P>0.05$) in national examination results between urban and rural secondary schools students.

These findings imply that secondary school students in Tanzania particularly in Dodoma are exposed and subjected to similar learning environment and common teaching-learning processes, therefore experience similar learning situation as far as teaching and learning materials, facilities and methodologies are concern. More 'B' grades scored by urban school students are perhaps due to exposure to tuition services and diversified sources of information, things that are hardly available in rural areas. This supports TGNP (1993) argument that students from disadvantaged areas perform less well than those from advantaged ones.

CHAPTER FIVE

5. CONCLUSION AND RECOMENDATIONS

5.1 Overview

In the previous chapter the major findings of the study were presented and discussed. Time management behaviour and practices in schools and students examination performance were examined. In this chapter a summary of major findings of the study is presented, followed by conclusions and recommendations.

5.2 Summary of major findings

The study aimed at examining utilisation of time located for teaching – learning and its impact on student scores, investigating effects of gender on time management and examination performance among students. Also the study intended to examine the impact of using located instructional for non-academic activities on students GPA, establishing relationship between time management and students' academic performance, and compare time management and performance between urban and rural school students. Time management behaviour and practices were evaluated and their impact on performance was examined. A number of factors determining performance were examined and their relationship with performance was established.

The study has revealed time resource wastage in schools caused by lateness, absenteeism, poor timetabling, and frequent emergencies. One to nine hours per week wasted, government schools wasted more time than private schools. There was negative correlation between misused learning time and students' gross point average. The present study observed no impact of gender in time management and examination performance,

both male and female students manage time in similar ways, hence perceive and make use of it in someway.

Several factors determining students performance were examined, namely subject teachers quality, number of teachers, learning environment, subjects utilised instructional time, time spent by students in group discussions, time devoted by teachers to teach and students to learn in the class, students' readiness and attendance. Causal effect relationship was observed between these variables and GPA. The study also found no significant difference in time management and performance in schools whether government or privately owned, rural or urban located. Secondary school teachers and students showed no significant difference in managing time and in examination performance.

5.3 Conclusion

From the findings of the present study the following conclusions are made.

5.3.1 Misuse of time resource

Abuse of time resource has a negative impact on students' academic performance. The level of time management differs from one individual to another and from one school to another. In this view good time management in educational institutions particularly secondary schools there is a need of having a stable and flexible administrative structure in each institution. The good and flexible administrative structure should start from the minister for education, the principle secretary, director of secondary schools, down to heads of schools, school academic deans, deans of secondary school students, teachers, school prefects and to every one in school communities. The schools also need adequate teaching –learning resources like teachers, books and other working tools. The government and all other education stakeholders' support are highly needed. Also teachers need to be highly

motivated by employers. All these could minimise the problem of time mismanagement, hence improve students academic performance in schools.

The small numbers of teachers in secondary schools adversely affected students learning, hence their performance. Most of the schools in Tanzania face the problem of shortage of teachers; this makes a considerable amount of learning time waste or used for unplanned activities.

5.3.2 Time management and performance

Due to low students performance in secondary schools some of students' parents have been made to revert into supplementary (tuition) programs in schools, at home and in locally established tuition centres. However provision of tuition largely depends on the home or family economic situation. It is determined by the level of education of some of family members, willingness of family members to help students in learning and willingness of teachers to devote their time for supplementary teaching. Generally among other factors, misuse of learning time contributed to students' low performance. For example learning time elapsing in schools per week, poor planning of activities which lead into failure to perform work nicely, distance to school for day school students and students as well as teachers absenteeism lead to low performance among students.

Secondary schools have common time utilisation practices and behaviour; this has a reflection on students' academic performance, which shows no significant difference among schools. Time utilisation in schools did no vary significantly from one type of school to another, among teachers and among students, this has resulted into similar students' academic performance. Also there was a positive correlation between wise use of

learning time and students' performance (GPA) and negative correlation between misused learning time and students performance. Thus schools time management behaviours and practices should be improved for the betterment of school academic performance as well.

5.3.3 School learning environment

Secondary school students' performance both in rural and urban schools, private and government owned schools, boarding and day schools is affected by unfavourable learning environment prevailing in secondary schools. Noise and air pollution, inadequate learning resources like books express this, shortage of facilities like water, electricity, laboratories and buildings that lead into students learning in crowded classrooms. There is a need of improving school facilities and equipment as permanent solutions to make teaching learning process more effective and interesting to teachers and students. School owners should be more concerned about teaching-learning environment. Any successful educational development needs adequate resources.

5.3.4 Subjects instructional time

Commercial subjects, Agricultural science, Chemistry and Physics were the leading subjects in terms of total time wasted due to teachers' absenteeism and teachers not teaching. Efforts should be made to ameliorate the situation.

5.3.5 Causes of time misuse

A considerable learning time actually was misused in schools (table 4.2, 4.3 and 4.4). Major causes observed include students reporting late to schools from holidays, punishments, shortage of teachers, lack of working tools, attending medical treatments, teachers absenteeism, frequent emergencies in schools and schools being on for less than

the recommended period. With this problems teachers fail to cover syllabuses adequately since partial teaching applies. These should be minimised to enhance efficient use time and improve students' performance.

5.3.6 Teachers and students time management

Most students reported to plan the use of time resource, however a considerable number of them never did it always. The level of time management among teachers was generally high, however a considerable number of teachers in different schools were not time conscious, never evaluated the way they spent their time, did not plan their daily activities paying less attention in locating time for primary role of developing students competence.

5.3.7 Effects of gender on time management and performance

The study found that, both male and female students have common time management behaviour and practices, hence academically equally affected by the way they perceive time and make use of it at schools and homes.

5.3.8 Determinants of secondary school students' performance

Students' performance in the study schools is a function of a series of factors. The number and quality of teachers, learning time utilisation, school learning environment, students' readiness a few to mention. As observed in this study, a considerable amount of learning time is misused in secondary schools. Shortage of teachers, distance to school, lack of awareness that time is a perishable and important variable in school, poor activity against time planning have exacerbated the problem of time misuse. For example in some schools total absence of some subjects teachers resulted into total misuse of subjects located learning time, this forced some students to rely on tuition.

5.3.9 Time management and academic performance by school location

It was observed that, time management behaviours and practices do not vary much by school location. Teachers in urban and in rural located secondary schools behave in similar ways in terms of managing time as an important resource in schools. It was further observed that common time management practices and behaviour prevail between rural and urban secondary school students. Thus same level and similar time utilisation practices exists in secondary schools regardless of being at rural or urban areas. Majority students from both rural and urban schools in national examinations scored 'C' grade in average, followed by 'D' grade, and no student from either rural or urban had an average grade of 'A'. This performance reflects common time management levels and practices that prevail in schools, among teachers and students and between rural and urban located schools.

5.4 Recommendations

Since the study revealed correlation coefficient and causal effect relationship between students' academic performance and time management and that the level of time management in secondary schools is low. Then one could make the following recommendations for improvement of time management in secondary schools and in turn improve students' academic performance. **These recommendations are useful to educational policy makers, educational planners, educational officers, heads of schools, students' parents or guardians, teachers and students.**

The study denoted that, although schedules of activities existed in most of schools, they were not all the time followed. In this view heads of schools or school managers should constantly be reminded on making sure that school activities are carried out as per

schedules. Emphasis should be on sticking to academic time tables and use of the 194 days or 38 weeks of learning in the year.

Heads of secondary schools should be made aware that time is a perishable important resource in schools and strategies for its effective utilisation need to be clear among time managers particularly teachers and students.

School managers or heads of schools should set strict but flexible and close supervision of working routines in their schools, this will facilitate effective utilisation of located learning time resource.

School administrations, all teachers and students should cultivate a culture of valuing time as none reversible variable. Designing and adopting better time utilisation practices in schools, also evaluating the use of located time for different activities periodically for better and effective utilisation of allotted instructional time.

Employers should review and consider teachers' motivation as an important component in education, so that they become good managers of learning resources particularly time for higher achievement of educational goals both at institutional level and national level. Attempts should be made to solve teachers and students problems as much as possible. Appropriate measures should be taken as soon as possible to improve teachers' remuneration and working conditions.

Students' aspirations, confidence and competitive characters among students should be raised through guidance, encouragement, supervision and control, these are likely to raise students performance.

Number of highly qualified teachers in schools should be increased to the optimum level. Since the link between unskilled and the decline in the standard of education is quite obvious (Daily News, April 29, 2003), teachers quality should constantly be improved and maintained high as much as possible. They have to cope with social political economic and technological dynamics of this World by attending in service short courses, seminars and workshops. Also at work stations should be provided with adequate working tools, since neither a fool no a wise wo/man can work without tools. Teachers also should be well-prepared, well-moulded in teachers colleges and universities. Because teachers are key stakeholders in changing secondary education for better (Daily news, May 17, 2003). Comprehensive teachers' training and retraining program exposing teachers to a range of educational dynamics of to day should be formulated to produce high quality teachers who could give students high quality education, other wise the quality of education will continue being compromised.

5.5 Suggestions for further researches

More researches are recommended on the following:

1. The role of tuition in the attempt to compensate misused learning time and its impact on students' performance.
2. Similar comparative study to be done on time management and goal achievement in governmental and none governmental parastatal organisations in Tanzania.
3. A similar study with similar methodology to be conducted in model (special) schools and seminary schools in Tanzania.
4. A similar study with similar methodology to be conducted country wise with large sample size to allow more insight into the problem of time misuse and student low performance.

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APPENDICES

Appendix 1: SPSS print out for linear regression

Model Summary[b]

Model	R	R Square	Adjusted R square	Std.Error of the Estimate	Change statistics				
					R square change	F change	df1	df2	Sig. F Change
1	.831[a]	.699	.599	9.9779	.691	7.519	22	74	.000

a. Predictor: (Constant), time elapsing without academic work, biology teachers quality score, kiwahili teachers quality score, Civics utilized instructional time, age of respondents, History utilized instructional time, total time spent for group discussion in a week for yes of question 66(a), Civics teachers quality score, Mathematics teachers quality, score about school learning environment, total time busy in the class learning per week, Biology utilized instructional time, History teachers quality score, Geography teachers quality score, Physics teachers quality score, English teachers quality score, distance to school (in km) from question 6a, Attendance (days) in year2001, Chemistry teachers quality score, Geography utilized instructional time, Physics utilized instructional time, Number of teachers in schools.

b. Dependent variable: Students' gross point average

ANOVA[b]

Model		Sum of squares	df	Mean square	F	Sig
1	Regression	16468.456	22	748	7.519	.000[a]
	Residual	7367.317	74	99.558		
	Total	23835.773	96			

a. Predictor: (Constant), time elapsing without academic work, biology teachers quality score, kiwahili teachers quality score, Civics utilized instructional time, age of respondents, History utilized instructional time, total time spent for group discussion in a week for yes of question 66(a), Civics teachers quality score, Mathematics teachers quality, score about school learning environment, total time busy in the class learning per week, Biology utilized instructional time, History teachers quality score, Geography teachers quality score, Physics teachers quality score, English teachers quality score, distance to school (in km) from question 6a, Attendance (days) in year2001, Chemistry teachers quality score, Geography utilized instructional time, Physics utilized instructional time, Number of teachers in schools.

b. Dependent variable: Students' gross point average

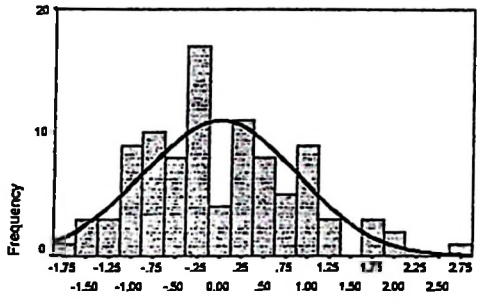
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-274.223	76.735		-3.574	.001
	age of respondent	1.719	1.080	.121	1.591	.116
	Attendance (days) in year 2001	.230	.111	.216	2.070	.042
	Biology teachers quality score	.101	.169	.060	.598	.552
	Biology utilised insructioal time	3.842	7.643	.084	.503	.617
	Chemistry teachers quality score	-.277	.259	-.134	-1.072	.287
	Civics teachers quality score	-8.47E-02	.178	-.040	-.475	.636
	Civics utilised instructional time	65.345	21.457	.578	3.045	.003
	distance to school (in km) from question 6a	-.500	.728	-.075	-.686	.495
	English teachers quality score	.427	.222	.190	1.924	.058
	Geography teachers quality score	-.283	.165	-.159	-1.721	.089
	Geography utilised instructional time	25.513	13.022	.681	1.959	.054
	History teachers quality score	-.179	.171	-.101	-1.045	.299
	History utilised instructional time	9.967	7.204	.188	1.384	.171
	Hours the goup meets in a week for yes of question 66(a)	.126	.167	.057	.757	.451
	Kiswahiii teachers quality score	-2.12E-02	.189	-.012	-.112	.911
	Mathematics teachers quality	.324	.208	.152	1.556	.124
	Number of teachers in school	2.037	.741	1.280	2.749	.008
	Physics teachers quality score	8.412E-02	.200	.046	.420	.676
	Physics utilised instructional time	28.003	5.466	.735	5.123	.000
	Score about school learning environment	.113	.287	.032	.393	.695
	Time busy in the class learning	4.306E-02	.305	.012	.141	.888
	time elapsing without academic work	-.161	.407	-.033	-.394	.694

a. Dependent Variable: Student's gross point average

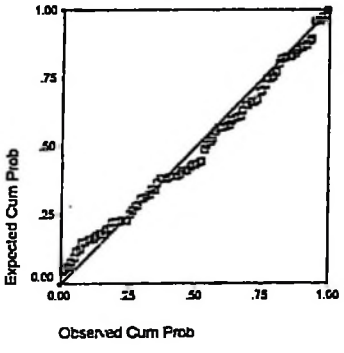
Histogram

Dependent Variable: Student's gross point average



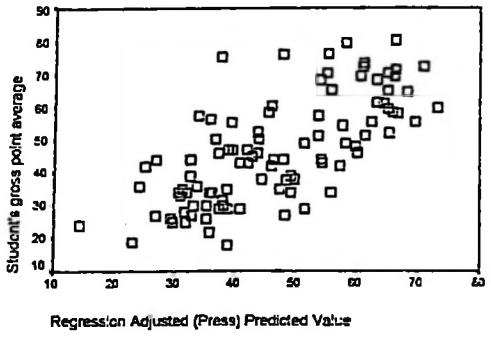
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Student's gross point average



Scatterplot

Dependent Variable: Student's gross point average



Appendix 2: Student respondents' performances in (2001) Form Two National Examination results

Statistics

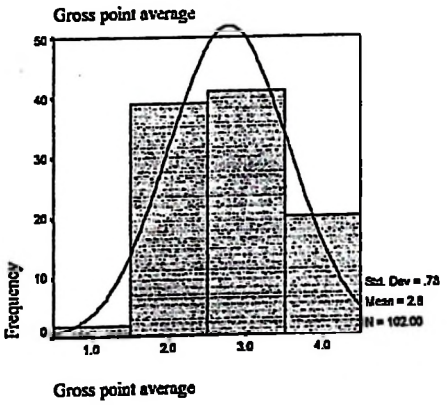
Gross point average

N	Valid	102
	Missing	0

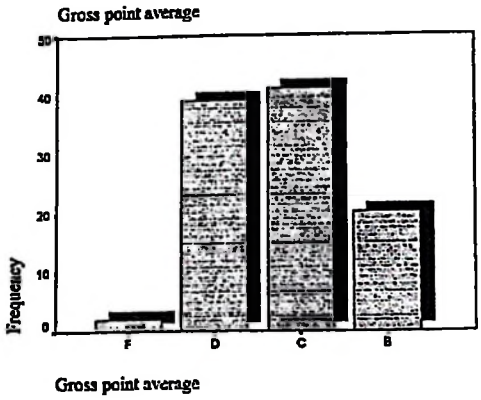
Gross point average

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	F	2	2.0	2.0	2.0
	D	39	38.2	38.2	40.2
	C	41	40.2	40.2	80.4
	B	20	19.6	19.6	100.0
	Total	102	100.0	100.0	

Histogram



Bar graph



Appendix 3:Equation for linear regression model

$Yi = -274.223$	$+ 2.0337X_1$	$+ 1.719X_2$	$+ (-0.500)X_3$	$+ (-0.161)X_4$
	0.741	1.080	0.728	0.407
$+ 0.04306X_5$	$+ 0.126X_6$	$+ 0.113X_7$	$+ (-0.0847)X_8$	$+ (-0.0212)X_9$
0.305	0.167	0.287	0.178	0.189
$+ 0.427X_{10}$	$+ (-0.179)X_{11}$	$+ (-0.283)X_{12}$	$+ 0.324X_{13}$	$+ (-0.277)X_{14}$
0.222	0.171	0.165	0.208	0.259
$+ 0.08412X_{15}$	$+ 0.101X_{16}$	$+ 0.230X_{17}$	$+ 65.345X_{18}$	$+ 9.967X_{19}$
0.200	0.169	0.111	21.457	7.204
$+ 25.513X_{20}$	$+ 3.842X_{21}$	$+ 28.003X_{22}$		
13.022	7.643	5.466		

Where:

X_1 = Independent factor showing number of teachers in school

X_2 = Independent factor showing students readiness (age)

X_3 = Independent factor showing distance to school in kilometres

X_4 = Independent factor showing time elapsing in school without academic work

X_5 = Independent factor showing total amount of time that teachers spend in teaching (class lessons) in a week

X_6 = Independent factor showing total amount of time in hours spend for group discussions in a week

X_7 = Independent factor showing School and classroom leaning environment

X_8 = Independent factor showing Civics teachers quality

X_9 = Independent factor showing Kiswahili teachers quality

X_{10} = Independent factor showing English teachers quality

X_{11}= Independent factor showing History teachers quality

X_{12} = Independent factor showing Geography teachers quality

X_{13} = Independent factor showing Mathematics teachers quality

X_{14} = Independent factor showing Chemistry teachers quality

X_{15} = Independent factor showing Physics teachers quality

X_{16} = Independent factor showing Biology teachers quality

X_{17} = Independent factor showing Student attendance

X_{18} = Independent factor showing Civics utilised instructional time

X_{19} = Independent factor showing History utilised instructional time

X_{20} = Independent factor showing Geography utilised instructional time

X_{21} = Independent factor showing Biology utilised instructional time

X_{22} = Independent factor showing Physics utilised instructional time

Appendix 4. Sample questionnaire for students' data

SOKOINE UNIVERSITY OF AGRICULTURE
DEVELOPMENT STUDIES INSTITUTE
QUESTIONNAIRE ON TIME MANAGEMENT AND STUDENTS' PERFORMANCE.

Questions have been formed to study how time as a resource is used in schools. This information is important both for scientific research and educational planning. As an interviewee you're very important in this survey because you present thousand of others who are not in the sample. Your responses will be completely confidential, your name will be in no way connected to the findings of this study. The results of this survey will be presented largely in the form of statistical reports.

A: GENERAL INFORMATION

Questionnaire serial number----------

1. Name of school----------

2. Name of respondent----------

3. School location 1 = Urban area, 2 =Rural area

4. Sex: 1 = Male 2 = Female 5. Age-------years

6. In what category of student do you belong?
   1= Boarding school student 2 = Day school student

7. (a) Where do you stay when the school is on ?
   1= School compass 2 = Off compass

   (b) If off compass how far is the school located from home? ----------Km

B: TIME MANAGEMENT

8. How often have you noted misuse of time in your school?
   1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

9. In what subject do teachers spend most of the time located? (Tick in the appropriate spaces)

Subject	Teachers attendance (Time utilisation)				
	1= Never	2= Seldom	3=Often	4=Sometimes	5=Always
Civics					
Kiswahili					
English					
French					
History					
Geography					
Biology					
Chemistry					
Physics					
Mathematics					
Agricultural science					
Book keeping					
Commerce					
Food and nutrition					
Computer studies					
Others (specify)					

10. Do teachers spend most of subject located time to teach you?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

11. Do teachers encourage and provide time for questions and discussions?
    1= Never 2= Seldom 3= Often 4 = Very often 5 = Always

12. Does participation in student government contribute to learning time misuse?
    1= Never 2= Seldom 3= Often 4 = Very often 5 = Always

13. How often do you find yourself using time wisely?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

14. Allotted time utilisation per week per subject. Feel in column C and D only

A	B	C	D	E		
Subject	Official time (In hours)	Weekly allotted time (In hours)	Weekly utilised time (In hours)	Difference(In hours)		
				B-C	B-D	C-D
Civics						
Kiswahili						
English						
French						
History						
Geography						
Biology						
Chemistry						
Physics						
Basic Mathematics						
Agricultural science						
Book keeping						
Commerce						
Home economics						
Computer studies						
Others (specify)						

Key: B-C = Official learning time lost by time tabling per week
B-D = Allocated learning time lost by teachers not teaching per week
C-D = Total wasted time per week

15. How often do the following events occur?

	1	2	3	4	5
Subject's teacher absent					
Period cancelled without genuine reason					
Subject teacher enter the class late					
Subject teacher get out of the class before the end of the period					
Period cancelled due to emergencies					
Doing punishment while fellow students learning in the class					
Doing none academic activities while fellow students studying in the class					
Others (specify)					

KEY: 1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

16. How often do you make daily list of activities to be accomplished?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

17. In the last academic year how often were you prioritising activities by importance and urgency in the use of your 24 hours of a day?
    1= Never 2= Seldom 3= Sometimes 4 = Very often 5 = Always

18. Do you arrange activities according to priorities set?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

19. Do you develop your own objectives for a week or a day?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

20. How much time do you spend in the following? (Tick where appropriate)

	1=None	2=Short	3=Medium	4=Long	5=Very long
Reading stories					
Charting with friends					
Doing assignments given by teachers					
Listening music					
Watching Television					
Doing domestic chores					
Sports / games					
Visiting Friends					
Sleeping					
Studying					
Prayers					
Others (specify)					

21. How do you like group discussion?
    1 = Hate it 2 = Don't like it 3 = It is ok 4 = Like it 5 = Like it very much

22. What is your general feel about secondary school studies?
    1= Very difficult 2 = Difficult 3 = Moderate 4 = Easy 5 = Very easy

23. Before you go to bed what is the last thing you think about? _____

24. When you get up in the morning what is the first thing you think about? _____

25. How comfortable do you feel with school schedules / time tables?
    1= Not at all 2 = Very little 3 = Some how 4 = Good 5 = Very good

26. How much time elapses without academic work at school in a week? ___ Hours
27. Are you given enough time to work at a typical pace to finish up assignments?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

28. How often are the assignments marked?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

29. How often do you finish up your assignments on time?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

30. While at home how often do you locate time for studies?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

31. (a) What is the education of your parents /guardian?
Adult education (----)
Primary education (----)
Secondary education (----)
Tertiary education (----)

(b) Do your parents / guardians give you more activities to do compared to other home members? 1= Yes 2 = No

If yes give reasons

32. Do you happen to attend extra teaching / tuition?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

33. How often do you spend more time with non-academic matters?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

34. How often do you fail to do your work nicely due to shortage of time?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

35. How many activities do you perform at school that you consider relatively unnecessary or not important?
1 =None 2 = Very few 3 = Just a few 4 = A good number 5 = Most of them

36. How often do you avoid interruption of your study time?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

37. Are there any factors that prevent you from having enough time for studies?
1 = Yes 2 = No If yes please mention them

38. How often have you analysed the way you spend your time?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

39. In your opinion do teachers including head of school advise you how to manage time? Explain

40. Do you agree that the following are some of the causes of time misuse in your school?

	1=Strongly disagree	2=Dis agree	3=Agree	4=strongly agree
Frequent emergencies				
Meetings / school *baraza*				
Cleanliness activities				
Involvement in school government				
Punishments administered during class hours				
Lack of working tools for cleanliness, gardening, etc				
Students reporting late from holidays				
Services not given within located time eg meals				
Inadequate transport to school				
Students send home to collect school fees				
Poor communication				
Attending medical treatment				
Unscheduled visits, public rallies and charity walks				
Teachers meetings				
Phone calls				
Preparation for sports and games competition				
Shortage of teachers				
Teachers excuses				
Participation in students' government				
Teachers attending seminars				
Others (specify)				

41. How do you cope with time misuse in your leaning process?

42. To what extent the time devoted to principal teaching-learning tasks is under well control or effective utilisation?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

C: INSTRUCTIONAL TIME

43. How often do you come to school late from holidays?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

44. You are supposed to be in school for studies for 194 days per year or 95 to 100 days per term. How often have you been staying in school for such days?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

45. Last academic year did you have any problem that kept you away from schooling? 1=Yes 2=No
If yes, about how many days were you out of school? _____ Days

46 What is the average number of absentees in the class per day? ___ Students

47. Do teachers enter classes for teaching on time?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

48. How frequent do subject teachers ask for excuse not coming in the class to teach?
1 = Not at all 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

49. Are teachers helpful in using your time properly?
1 = Not helpful 2 = Helpful 3 = very helpful

If not helpful give reasons

50. How often do you clear your table for assignment or home works?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

51. How often does exchange of study places disturb time located for teachers to teach you?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

52. How many hours do you keep yourself so busy in the class leaning per week?
_____ Hours

53. How many hours do you find yourself idle per week? _____ Hours
54. How many hours per week do you get involved in non-academic activities?
_____ Hours

55. How many students in average enter the class late at the beginning of the first period? 1 = 0, 2 = 1-4, 3 = 5-8, 4 = 9-12, 5 = over 12

55. How many students usually come to class 10- 20 minutes late?
1 = 0, 2 = 1-4, 3 = 5-8, 4 = 9-12, 5 = over 12

56. How many students usually get into the class 30 minutes after the first lesson / period started? 1 = 0, 2 = 1-4, 3 = 5-8, 4 = 9-12, 5 = over 12

57. (a) Do you have laboratories in your school? 1 = Yes 2 = No

(b) If yes, what is their situation?
1= No equipment at all, 2=Ill equipped with apparatuses and chemicals
3= Well equipped with apparatuses and chemicals

(c) How often do you perform laboratory experiments?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always
(d) What amount time do you spend for laboratory experiments in a month
_____hours

58. (a) Have you ever have enough time to serve your meals? 1 = Yes 2 = No

(b) How often does time for meals extends to consume part of your study time?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always
(c) For how long do you take your breakfast____hours, Lunch____hours

59. (a) How often do you finish up morning cleanliness on time?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always
(b) How Many hours are used?_____Hours

60. How often does time for class lessons is used for morning cleanliness?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

61. (a) How often do morning assemblies / parade is extended in such a way that consumes part of teaching–leaning time?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always
(b) How much time is consumed_____Hours/minutes

62. How often does school morning parade or *baraza* consume classroom teaching-learning time?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

63. Where often do you carry out your private studies?
1 = Home 2 = Classroom 3 = Library 4 = Other places (specify) _____

64. What amount of time do you spend in private studies or other academic activities after class hours? _____ Hours

65. In average how many hours of private study do you have per week? _____ Hours

66. (a) Do you have a study group? 1 = Yes, 2 = No

(b) If yes, do you meet for how many hours in a week? _____Hours

67. In your school are there enough teachers to teach the subjects?
1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree

68. How often do you experience the problem of total absence of certain subjects' teachers?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

69. What subjects you are not taught due absence of teachers in your school?

70. Give scores for availability of the following facilities in your school

CRITERIA	SCORES										
	0	1	2	3	4	5	6	7	8	9	10
Buildings eg. Classrooms											
Desks/Tables											
Chairs											
Electricity											
Clean water supply											
Library services											
Laboratories											
Others specify											
Total											

71. How often do you sit and write on the desk or table?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

72. How often do the school buildings facilitate smooth learning in your school?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

73. (a) Is electricity one of the sources of energy in your school? 1=Yes, 2= No
(b) How often do you experience constant supply of electricity in your school?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

74. (a) Do you have a permanent source of water in your school? 1=Yes, 2=No
(b) If yes, how often do you experience constant supply water from that source?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

75.Check all the ways in which you usually get information in your school

_____TV
_____Internet
_____News papers
_____Radio
_____Magazine
_____Word mouth
_____Others (specify)_____

76. Are there enough facilities in your school? Fill in the table by putting (v) where appropriate to answer this question.

	1	2	3	4	5	6
Classrooms						
Chairs						
Tables / desks						
Electricity						
Water supply						
Library services						
Laboratories						
Weather station						
Others (specify)						

KEY: 1= unable to answer, 2 = Strongly disagree, 3 = Disagree, 4 = Neutral, 5 = Agree, 6 = Strongly agree

77. (a) Do your school have textbooks for you to read?
1 = Never 2 = Very few 3 = good number 4 = Just enough

(b) How difficult is it for you to get and use the following services?

	1=Not difficult at all	2=Moderate	3=Difficult	4=Very difficult
Books				
News papers/magazine				
Access to subject teachers				
Do laboratory experiments				
Chair / table in the class				
Guidance on time management				
Current information				
Others (specify)				

78. Are there reference books in your school to facilitate your studies?
1 = Never 2 = Very few 3 = good number 4 = Just enough

79. How often do you borrow books from subject department or library?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

80. How many books do you borrow per term? _____ Books

81. Give scores for availability of learning materials in your school

CRITERIA	SCRORES										
	0	1	2	3	4	5	6	7	8	9	10
Textbooks											
Reference books											
weather station											
Laboratory chemicals and apparatuses											
News papers and magazine											
Total											

82. How good do you feel about school learning environment?
1= Not at all, 2 = Very little, 3 = Some how good, 4 = Good, 5 = Very good

83. In your school how often do you feel free from noise or air pollution?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

84. How often do you feel that your learning rooms in your school are well ventilated?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

85. How often do you find your leaning places well lighted?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

86. Basing on the given criteria give scores about your school/classroom environment

CRITERIA	SCORES									
	1	2	3	4	5	6	7	8	9	10
Ventilation										
Free from noise pollution										
Free from air pollution										
Total										

87. How often do you find your self in an overcrowded class?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

88. What is your parents / guardian occupation? _____

89. (a) Who pays school fees for you? _____

(b) Please indicate number and value of assets owned by the family you belong

Asset	Number	Current value (Tsh)
Radio		
Sewing machine		
Bicycle		
Vehicle		
Milling machine		
Ox plough		
Shop / Kiosk		
Machete (*Panga, mundu)*		
Pair of oxen		
Hand hoe		
Ox-cart		
Sofa seat		
TV		
Refrigerator / freezer		
Others (specify)		

90. To what extent national examination questions are difficult to attempt?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

91. Syllabuses contain topics, which are difficult to understand?
1= unable to answer, 2 = Strongly disagree, 3 = Disagree, 4 = Neutral,
5 = Agree, 6 = Strongly agree

92. Syllabuses contain good topics but teachers can't teach them well?
1= unable to answer, 2 = Strongly disagree, 3 = Disagree, 4 = Neutral,
5 = Agree, 6 = Strongly agree

93. How often school activities carried out are indicated in the school timetable?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

94. In the last academic year how frequent did you happen to fall sick?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

95. How often do you take balanced diet during schooling period?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

96. How often do you enter classroom late due to transport problems?
1 = Never 2 = Very rare 3 = Sometimes 4 = Very often 5 = Always

97. Do you feel studying very frequently or very seldom? (Circle one appropriate number)
Very seldom 1 2 3 4 5 Very frequently

98. What is the education of parents or relatives you live with?

	1	2	3	4	5
Father					
Mother					
Others (Specify)					

KEY: 1 = Adult education, 2 = Primary education, 3 = Secondary education,
4 = Tertiary education, 5= None

99. Teachers can't finish up syllabuses?
1= unable to answer, 2 = Strongly disagree, 3 = Disagree, 4 = Neutral,
5 = Agree, 6 = Strongly agree

100. Teachers' quality:
Give scores for your last year subject teachers basing on the
given criteria and subject

Subject	Criteria	Scores									
		1	2	3	4	5	6	7	8	9	10
CIVICS	Subject content mastery										
	Activeness & participation in teaching and administration										
	Material delivery										
	Marking students' exercises										
Total											
KISWAHILI	Subject content mastery										
	Activeness & participation in teaching and administration										
	Material delivery										
	Marking students' exercises										
Total											
ENGLISH	Subject content mastery										
	Activeness & participation in teaching and administration										
	Material delivery										
	Marking students' exercises										
Total											
HISTORY	Subject content mastery										
	Activeness & participation in teaching and administration										
	Material delivery										
	Marking students' exercises										
Total											
GEOGRAPHY	Subject content mastery										
	Activeness & participation in teaching and administration										
	Material delivery										
	Marking students' exercises										
Total											
MATHEMATICS	Subject content mastery										
	Activeness & participation in teaching and administration										
	Material delivery										
	Marking students' exercises										
TOTAL											
CHEMISTRY	Subject content mastery										
	Activeness & participation in teaching and administration										
	Material delivery										
	Marking students' exercises										
Total											
PHYSICS	Subject content mastery										
	Activeness & participation in teaching and administration										
	Material delivery										
	Marking students' exercises										
Total											
BIOLOGY	Subject content mastery										
	Activeness & participation in teaching and administration										
	Material delivery										
	Marking students' exercises										
Total											
Others(Specify)											

101. Is your academic performance in one way or another influenced by the way time is utilised in your school? 1 = Yes, 2 = No. Give reasons

102. What do you think are the reasons for most students not doing well in national examinations?

103. What strategies do you apply in order to improve your academic performance?

THANKS VERY FOR YOUR TIME, CO-OPERATION AND ASSISTANCE IN CONDUCTING THIS IMPORTANT STUDY

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Appendix 5. Sample questionnaire for teachers data

SOKOINE UNIVERSITY OF AGRICULTURE

DEVELOPMENT STUDIES INSTITUTE

QUESTIONNAIRE ON TIME MANAGEMENT AND STUDENTS' PERFORMANCE.

Questions have been formed to study how time as a resource is used in schools. This information is important both for scientific research and educational planning. As an interviewee you're very important in this survey because you present thousand of others who are not in the sample. Your responses will be completely confidential, your name will be in no way connected to the findings of this study. The results of this survey will be presented largely in the form of statistical reports.

A: GENERAL INFORMATION

Questionnaire serial number----------

1. Name of school---------- 2. Name of respondent----------

3. Sex: 1 = Male 2 = Female 4. Age-------years

4. School location 1 = Urban area 2 =Rural area

5. Education: 1= Certificate, 2 = Ordinary diploma, 3 = Advanced diploma, 4 = Graduate, 5= Post graduate

6. Is teaching your profession? 1 = Yes 2 = No

7. For how long have you been teaching? 1= 0 – 4 years, 2= 4 – 8 years, 3 = 8 – 12 years, 4= over 12 years

8. For how long have you been teaching in this school?
1= 0 – 4 years, 2= 4 – 8 years, 3 = 8 – 12 years, 4= over 12 years

9. (a) Where do you reside? 1 = School compass 2 = off school compass (----)

b) If off compass how far the school is from your home? ---------Km

B: TIME MANAGEMENT

Circle the number for the right item

10. How often have you noted misuse of time in your school?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

11. How often do you report at work place on time?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

12. How many hours do you keep yourself so busy in the class teaching per week?
    _____ Hours

13. How many hours do you find yourself idle per week? _____ Hours

14. How many hours per week do you get involved in non-academic activities?
    _____ Hours

15. How often do you spend most of the allotted time for your subject(s) to teach students?

    1= Never 2= Seldom 3= Often 4 = Very often 5 = Always

18. You are supposed to teach for about 194 days in one academic year or 95 to 100 days per term. How often do you teach for such number of days?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

19. How often do you find time to concentrate upon retarded and advanced students? or those with special or temporary difficulties?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

20. Do you find extra time to assist students facing difficulties in learning certain aspects?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

21. Is there ever enough time within the normal lessons span either to speed a head with the bright and eager or plod along safely with the dull listless?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

22. Do you schedule your time for test, meetings, lessons, notes making and the like?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

23. Do you spend part of your time to develop student's competence by sharing evaluation with them?
    1= Never 2= Seldom 3= Sometimes 4 = Very often 5 = Always

24. How often do you spend more time with personal activities than doing schoolwork?
    1= Never 2= Very rare 3= Sometimes 4 = Quite often 5 = Always

25. How often do you fail to perform your work well due to shortage of time?
    1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

26. How often do you find yourself cleared all the work on your table?

1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

27. How often do you write your wok plan for each day?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

28. To what extent are you satisfied with school schedules?
1 = Not at all 2 = Very little 3 = Somehow 4 = Good 5 = Very good

29. How often do you avoid interruptions of school activities?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

30. How often have you evaluated the way you use your 24 hours of a day?
1= Never 2= Very rare 3= Sometimes 4 = Very often 5 = Always

31. How often do you happen not to attend the class for teaching?
1= Never 2= Seldom 3= Often 4 = Very often 5 = Always

32. Do you happen to spend time with students in the following aspects? (Tick where appropriate)

	1 = Never	2 = Seldom	3 = Often	4 = Sometimes	5 = Always
Extra academic help					
Behaviour management					
Listening to students					
Talking to students					
Playing with students					
Others (specify)					

33. (a) How often do you provide academic assistance to students not studying in your school?
1= Never 2= Rarely 3= Sometimes 4 = Very often 5 = Always

(b) When do you assist them? (Tick one)
During vacation (----)
When the school is on (----)
When the school is on and during vacation (----)
(c) In a week how much time do you spend in assisting them? --------Hours

34. How often do you miss to teach students?
1= Never 2= Very rare 3= Often 4 = Very often 5 = Always

35. Does the located time to teach your subject enough to cover the syllabus?
1=Yes 2 = No

If no, give reasons by ticking yes or no in the given table.

	Yes	No
Many topics		
Long topics		
There difficult topics to teach		
Busy with other issues		
Students are slow learners		
Shortage teaching materials		
Time located is not enough		
Others (specify)		

36. Does the number of periods located for your subject (s) to teach per week exist in the master timetable? 1 = Yes 2 = No If no give reasons

37. What measures do you take to ensure that time allotted for your subject is fully utilised? No way (---), give them assignment (---), teach them in extra time (---) attend all the periods (---) ·

C: PERFORMNCE AND ATTENDANCE

38. Are students in your school working well? 1 = Never 2 = some how 3 = Always

39. To what extent do students find national examination difficult to attempt?
1= Never 2= Seldom 3= Often 4 = Very often 5 = Always

40. Is student discipline a problem in your school? 1 = Never 2 = some how
3 = Always

41. Is truancy a serious problem in your school? 1 = Never 2 = some how
3 = Always

42. Syllabuses contain topics that are difficult to teach
1 = Unable to answer 2 = Strongly disagree 3 = Disagree 4 = Neutral
5 = Agree 6 = Strongly agree

43. Work environment motivates teaching
1 = Unable to answer 2 = Strongly disagree 3 = Disagree 4 = Neutral
5 = Agree 6 = Strongly agree

44. Do you feel teaching your students very frequently or very seldom? (Circle the appropriate number)
Very seldom 1 2 3 4 5 Very frequently

45. Compensation for the work is satisfactory to meet basic needs
1 = Unable to answer 2 = Strongly disagree 3 = Disagree 4 = Neutral
5 = Agree 6= Strongly agree

46. What do you think are the reasons for most students not doing well in their national examinations?

47. What strategies do you apply in order to improve students' performance?

48. What strategies do use to make sure that school activities are carried out as planned?

49. (a) What factors affect you from having ample time for your activities?

(b) State the reasons behind

50. Check all the ways in which you obtained information in the last month

_____Television
_____Internet
_____News papers
_____Radio
_____Magazine
_____Word mouth
_____Others (specify)----------

51. Do you agree that the following are some of the causes of time misuse in your school?

	1=Strongly disagree	2=Dis agree	3=Agree	4=strongly agree
Frequent emergencies				
Meetings / school *baraza*				
Cleanliness activities				
Involvement in school government				
Punishments administered during class hours				
Lack of working tools for cleanliness, gardening, etc				
Students reporting late from holidays				
Services not given within located time eg meals				
Inadequate transport to school				
Students send home to collect school fees				
Poor communication				
Attending medical treatment				
Unscheduled visits, public rallies and charity walks				
Teachers meetings				
Phone calls				
Preparation for sports and games competition				
Shortage of teachers				
Teachers excuses				
Participation in students' government				
Others (specify)				

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