

**PARENTS' INCOME AND PRIMARY SCHOOL STUDENTS PERFORMANCE IN
TABORA REGION**

BY

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN RURAL
DEVELOPMENT OF SOKOINE UNIVERSITY OF AGRICULTURE.
MOROGORO, TANZANIA.**

2009

ABSTRACT

The aim of the study was to investigate the influence of parent's income on the student's performance in primary schools in Tabora region. The specific objectives of the study were;(i) to examine the relationship between parent's education level and students' performance;(ii) to investigate the extent of fulfillments of basic study materials needed in class and during private time studies; (iii) to investigate parental influence on managing students' time and other necessary resources investing in education; and (iv) to analyze the influences of parent's income and students' performance. The study used cross-sectional survey design in data collection. The aim was to allow collection of data on different groups of respondents at one point at a time. Data were collected using an interview and questionnaires. Moreover, Focus Group Discussion (FGD) was employed during data collection. Cross tabulation and logistic regression models were used to analyze data on the factors that influence student's school performance. The study was purposely carried in only one primary school selected out of 72 primary schools in Tabora Municipality (due to its students' family income heterogeneity). The study involved 120 respondents (63 pupils; 19 teachers and 38 parents). Study findings revealed that the availability of teaching-learning materials to students and long distance from home to school affected student's performance in Tabora region. Other factors like student's attitude towards education; tuition and student's self time study affect student's performance in Tabora region. Thus, the study recommends on the availability of teaching-learning materials to students. Further more, the study recommends on introduction of various programmes that could improve student's attitude towards education. More over, many schools should be built to reduce distance from home to school a factor that tends to affect student's performance in Tabora.

DECLARATION

I, Lawi Mugeta Kajanja, do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work and has not been nor concurrently being submitted for a higher degree award in any other University.

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Date

The above declaration is confirmed

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Date

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ACKNOWLEDGEMENTS

I extend my thanks to the Almighty God for guiding me in each and every step of my stay while at Sokoine University of Agriculture. I would like to express my heartfelt gratitude to my wife Mugalla Njarabi; my sons James and Zephaniah Kajanja, for offering me a full release from home in order to attend my studies. Special thanks should go to my supervisor Dr. S.M, Simon of DSI (SUA), for his tireless encouragement, guidance, assistance, and patience, together with their constructive criticisms that made this work successful.

My sincere gratitude should be expressed to the family of Dr. S. Many of Geology Department, University of Dar Es Salaam as well as Mr. K. Manumbu of TAP, Morogoro and Pr. E. Kasika of Morogoro together with his family for their unforgettable friendly support made to me. My special thanks are due to my parents, my young brother and sisters for their endless encouragement and moral support throughout my study at Sokoine University of Agriculture.

My thanks are also extended to all teachers and students at Mihayo primary schools in Tabora Municipality without forgetting parents and other education stakeholders who cooperatively provided me with enriched information through in-depth interviews and filling in questionnaires. My appreciations should also go to the Development Studies Institute staff and all postgraduate colleagues in the year 2006-08. Thanks to Eyembe, B; A. Makachila; Lusesa, N; Sungu,P; and all other M.A. Rural Development classmates not mentioned in this page for their moral and material supports. Special thanks are also to Mr.Ringo; Mlando and Mushangama of Ardhi Institute- Tabora. To you all I say thanks a lot.

DEDICATION

This work is dedicated to my father the late Mr. Mugeta Chitundo Kajanja, and my mother Peresia Mutiti who laid the basis of my education and the uncountable sacrifices for upbringing and educating me. May the Almighty God bless them.

TABLE OF CONTENTS

ABSTRACT	ii
DECLARATION	iv
COPYRIGHT	v
ACKNOWLEDGEMENTS	vi
DEDICATION	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	xiii
LIST OF FIGURES	xiv
LIST OF APPENDICES	xv
LIST OF ABBREVIATIONS AND ACRONYMS	xvi
CHAPTER ONE	1
1.0 INTRODUCTION	1
1.1 Background Information	1
1.2 The Trend of Primary School Performance	4
1.3 Problem Statement and Justification	5
1.3.1 Problem statement	5
1.3.2 Justification of the study.....	6
1.4 Objectives of the Study	8
1.4.1 General objectives.....	8
1.4.2 Specific objectives	
Specifically the study intended to;	8
1.5 Research Hypothesis	8
1.5.1 Operational hypothesis.....	8
1.5.2 Null hypothesis.....	9
1.6 Conceptual Framework	9
1.7 Set up of the Dissertation	11
CHAPTER TWO	12
2.0 LITERATURE REVIEW	12
2.1 Theories of Education Performance	12
2.1.1 Motivation theory	12

Among the theories that explain about education performance includes the “Motivation theory”. The theory was established by Atinkson (1964) who advocated that motivation makes a person to strive for particular goal or results from the strength of the basic needs intended to satisfy him. The fundamental factor is the expectation that the goal will be achieved. Based on this theory the fundamental expectation of any student in education program is to make good performance, contextually defined as passing his or her examinations.	12
The motivation of a student includes parents’ reinforcement of their children in academic matters like regular school attendance, attending of tuition, and catalyzing them in building positive attitudes towards learning and performance at large (Chinnapah et al., 2000). Parents’ aspiration of being recognized in terms of status and economic returns from the education investment of their children will motivate them create better learning environments to their children hence encouraging good performance.	13
An assumption is that students from well to do families are likely to be highly motivated in their education matters compared to their counterparts (Atinkson, 1964). The reason behind to this assumption is that most of the ‘well- to do’ families usually set goals in order to identify certain payoffs like recognition, promotion and status unlike their counterparts. Such kind of motivation will more positively benefit students from the well to do families performing better in their academics than their counterparts when other factors being held constant.....	13
2.1.2 Goal- setting theory.....	13
2.1.3 Expectancy theory.....	14
2.1.4 The need hierarchy theory.....	15
2.2 Definition of Performance.....	17
2.3 Students’ Education Performance.....	17
2.4 Considerations in Measuring Performance	17
2.5 Students’ Performance Worldwide.....	19
Education is becoming increasingly international (Zaharias, 2005). Not only are the materials becoming more influenced by the rich international environment, but also exchanges among students at all levels are also playing an increasingly important role. Educational performance worldwide however is a controversial issue. Some progressives or advocates often believe that the current grading system lowers students' self-confidence hence poor performance (http://www.learningstyles.net/). An example is that students may receive poor marks due to factors outside their control. Such factors include poverty, child abuse, and prejudiced or incompetent teachers.....	19
2.6 Students’ Performance in Africa.....	20
2.7 Students’ Performance in Tanzania.....	21
2.8 Students’ Performance in Tabora.....	22
2.9 Factors Influencing Students’ Performance.....	23

2.9.1 School learning environment.....	23
2.9.2 Books and other learning materials	24
2.9.3 Classroom attendance.....	25
2.9.4 Distance from home to school.....	26
2.9.5 The effects of peers.....	27
2.9.6 Home environment factors.....	28
Home environment is one of the facilitating conditions in the performance of a student (Lockheed and Vespoor, 1991). Home environment includes the provision with school learning facilities like stationeries and school uniforms, school fees as well as good nutrition to a student. They (parenting classes) help in creating less stressful home environment and making a strong and positive working relationship between parents and their children as well as teachers.	
Listening and valuing adolescent ideas is what promotes the ability of parents to effectively communicate with their children (Anderson, 1993). Parents that do not listen well to their children’s problems because they are too busy with work, community, church, and home responsibilities the performance of their children are not good compared to the ones who do when other factors are held constant. It is at home where talking about morals and ethical behavior and passing along a strong sense of values is one of the fundamental tasks of being a parent. Parents therefore need to talk to their children about their school progresses and how these children coup with their studies (Anderson, 1993).....	28
28	
2.9.7 Health-related factors and school performance.....	28
2.9.8 Effects of nutrition on school performance.....	30
2.9.9 Parent’s income and school performance.....	31
2.9.10 Parents’ education level and school performance.....	31
2.9.11 Parents’ occupation and school performance.....	34
Parents’ occupation is rather vital in student’s school performance as it determines family resources availability (income and expenditures) including school expenses. Parents’ occupation tend to influence student’s learning capability as he /she may desire to be like one of his/her parent when grown up. Parenting classes, including occupation of parents helps children to learn ways of providing consistency, structure, and a positive behaviour (Phillips, 1994)....	
Parents’ occupation sometimes has been detrimental to children as most parents do not listen well because they are too busy with their works, community, church, and home responsibilities apart from school related activities to their children (Phillips, 1994). This leads to poor performance among those children whose parents, according to their occupation, never take troubles in order to help them in their academics compared to those who do when all other variables are held constant. Thus, parents’ occupation can influence to student’s performance either positively or in a negative way depending on how a parent struggles for academic betterment of his/her school children (Anderson, 1993).....	35
2.9.12 Student’s time management and school performance.....	35
2.9.13 Other socio-economic factors.....	37

2.9.14 Student's attitude towards learning	37
2.9.15 Effects of peers on school performance.....	38
2.9.16 Effects of tuition on school performance.....	39
2.9.17 Nature of household and school performance.....	39
2.9.18 Size of the family and school performance.....	40
2.9.19 Effects of child labour on school performance.....	41
2.9.20 Effects of community support and school resources availability	42
2.10 Review of Similar Studies on Factors Affecting Student's Performance.....	43
2.11 Review of Methodological Aspects and Tools Used to examine Factors influencing	
Students' School Performance.....	49
2.11.1 Factor analysis.....	49
2.11.2 Linear regression analysis	50
2.11.3 Multiple regression analysis.....	51
2.11.4 Logistic regression model.....	52
2.12 Specification of Empirical Model (logit model).....	53
CHAPTER THREE.....	57
3.0 RESEARCH METHODOLOGY.....	57
3.1 Study Area, Location and its Characteristics.....	57
3.1.1 The Study Area	57
3.2 Research Design.....	60
3.3 Sampling Procedure.....	61
3.3.1 Selection of the sample district.....	61
3.3.2 Selection of sample pupils, teachers and parents.....	61
3.3.4 Sample size.....	62
3.3.3 Data collection.....	64
3.3.4 Sources of data.....	64
3.3.5 Reliability and validity of methods.....	64
3.4 Data Analysis	65
3.4.1 Descriptive statistics.....	65
3.4.2 Empirical Model (logit regression model).....	66
CHAPTER FOUR.....	67
4.0 RESULTS AND DISCUSSION.....	68
4.1 Overview.....	68
4.2 Background Characteristics of Respondent	68

4.2.1 Sex.....	68
4.2.2 Age.....	69
4.2.4 Parents' occupation.....	71
4.2.5 Location of respondents.....	72
4.2.6 Size of the household.....	73
4.2.7 Nature of household.....	74
4.3 Determinants of Student's Performance.....	75
4.3.1 Income level of parents	75
4.3.2 Student's attitude towards learning.....	76
4.3.3 Distance from home to school.....	77
4.3.4 Effects of peers on student's performance.....	79
4.3.5 Student's time management.....	79
4.3.6 Effects of tuition on student's performance.....	80
4.3.7 Student's self-study and performance.....	81
4.3.8 Student's school attendance and performance.....	82
4.3.9 School learning materials supply and performance.....	83
4.3.10 Nutrition and student's performance.....	84
4.3.11 Health related factors.....	85
4.4 Logistic Regression Results.....	86
Attending shadow teaching (tuition).....	86
.775.....	86
3.071	86
.054 86	
Xi = Independent variables Yi = Gross point average (dependent variables).....	86
R2 = Coefficient of determination ** =significant at P<0.01.....	86
4.4.1 Operational uses of logit model in this study.....	88
4.5 Summary of Major Findings.....	89
CHAPTER FIVE.....	91
5.0 CONCLUSION AND RECOMMENDATIONS.....	91
91	
5.1 Recommendations.....	92
5.2 Limitations of the Research.....	92
REFERENCES	94

<i>Allan, A. (1996). An Introduction to Categorical Data Analysis: An excellent accessible introduction. John Wiley Press, New York.37– 40pp.</i>	<i>94</i>
<i>.....</i>	<i>94</i>
APPENDICES.....	102
Attending shadow teaching (tuition).....	102
.775 102	
3.071 102	
.054**	102
R2 = Coefficient of determination ** =significant at P<0.01.....	102

LIST OF TABLES

<i>Table 1: Comparisons of primary school performance between Tabora region and some selected regions in Tanzania from the year 2000 to 2007.....</i>	<i>4</i>
<i>Table 2: Symmetrical distribution of Logit around central value.....</i>	<i>55</i>
<i>Table 3: Distribution of respondents (students) by background characteristics</i>	<i>69</i>
<i>Table 4: Parents' level of education in numbers and percentages</i>	<i>70</i>
<i>Table 5: Parents education, children's homework assistance and performance.....</i>	<i>71</i>
<i>Table 6: Parents' occupation (in percentages) and students' performance.....</i>	<i>71</i>
<i>Table 7: Influence of location of a student and school performance.....</i>	<i>73</i>
<i>Table 8: Size of the household and students' performance.....</i>	<i>74</i>
<i>Table 9: Nature of the household and students' performance.....</i>	<i>75</i>
<i>Table 10: Influence of parents' income and students' school performance.....</i>	<i>76</i>
<i>Table 11: Students attitude towards learning and academic performance</i>	<i>77</i>
<i>Table 12: Distance from home to school and students performance.....</i>	<i>78</i>
<i>Table 13: Students time management and academic performance</i>	<i>80</i>
<i>Table 14: Missing of school per week and student's performance</i>	<i>83</i>
<i>Table 15: Students material supply and school performance.....</i>	<i>84</i>
<i>Table 16: Balanced diet intake per week and students average scores</i>	<i>85</i>
<i>Table 17: Results of Logit regression analysis of the variables.....</i>	<i>86</i>

LIST OF FIGURES

Figure 1: Conceptual Framework for the study of Parents' income and primary School Students' Performance.....10

Figure 2: Cumulative normal distribution curve.....56

Figure 3: Map of Tabora region – Administrative area.59

LIST OF APPENDICES

Appendix 1: Results of Logit regression analysis of the variables.....102
Appendix 2: Sample questionnaire for pupils, teachers and parents103
Appendix 3: Questionnaire for teachers and parents.....110

LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	–	Acquired Immune Deficiency Syndrome
DRC	–	Democratic Republic of Congo
DSI	–	Development Studies Institute
DUP	–	Dar Es Salaam University Press
ESDP	–	Education Sector Development Programme
ETP	–	Education and Training Policy
FGD	–	Focused Group Discussion
GPA	–	Gross Point Average
HESLB	–	Higher Education Loan Board
HIV	–	Human Immune-deficiency Virus
ILO	–	International Labour Organisation
MDG	–	Millennium Development Goal
MOEC	–	Ministry of Education and Culture
MOEVT	–	Ministry of Education and Vocational Training
NECTA	–	National Examination Council of Tanzania
NGO	–	Non – Government Organization
PEDP	–	Primary Education Development Program
PRSP	–	Poverty Reduction Strategy Paper
PSLE	–	Primary School Leaving Examination
REO	–	Regional Education Officer
SIDA	–	Swedish International Development Agency
SNAL	-	Sokoine National Agricultural Library
SPSS	–	Statistical Package for Social Sciences

SUA	–	Sokoine University of Agriculture
TAP	–	Tanzania Adventist Press
TEP	–	Tanzania Education Policy
TDHS	–	Tanzania Demographic Health Survey
TDV	–	Tanzania Development Vision
TPR	–	Teachers: Pupil Ratio
UNESCO	–	United Nations Education, Science and Culture Organization
UNICEF	–	United Nations Children’s Fund
UPE	–	Universal Primary Education
URT	–	United Republic of Tanzania
WB	–	World Bank

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Education is an important component for human development (Schultz, 2002). It is the key to sustainable development and peace and stability within and among countries, and thus an indispensable means for effective participation in the societies and economies (World Education Forum, 2000). Thus, education explains varying levels of socioeconomic return and economic growth. In addition it equips an individual with skills to meet global challenges in science and technology and production processes in global markets (Schultz, 2002). Education therefore helps to buffer various socio-environmental shocks by enabling more secure employment, higher incomes and better access to economic assets and credit (UNFP, 2002).

In order to address these challenges and improve educational performance, Tanzania has introduced a number of programs to improve education performance. The programs include Universal Primary Education (UPE) in 1974; Primary Education Development Program (PEDP) from the year 2002 to 2006 and Secondary Education Development Program (SEDEP) (UTR, 2004).

Despite all the above efforts, yet the situation is discouraging. This is because there is still yet a number of pupils who fail to get the pass mark which, in primary school is 60 out of 150 and therefore considered as failures. While the trend of primary school performance since 2001 shows slight improvement, however, on average the performance is yet far from envisaged. Data indicates that in the year 2001 and 2002 average failures were 72%; in the

year 2003 and 2004 the number of failures was 65%. However, in the year 2005 and 2006 a number of failures decreased to 38% while in the year 2007 it rose to 56% (MOVET, 2008).

Due to its importance, there is a need of improving education quality because quality is the heart of education (*World Education Forum, 2000*). A quality of education is one that satisfies basic learning needs, and enriches the lives of learners and their overall experience of living. A quality of education should be measured through its outcomes, which is students' performance in their examinations. Thus governments and all other education partners must work together to ensure basic education of quality for all, regardless of gender, wealth, or location (*World Education Forum, 2000*).

The quality of education in sub-Saharan Africa in order to be successful it requires programmes like good healthy, well-nourished and motivated students (*UNESCO, 1997*). It also requires well-trained teachers and active learning techniques; adequate facilities and learning materials. Other requirements include clear definition and accurate assessment of learning outcomes, including knowledge, skills, attitudes and scores that a student gets in his or her examinations.

Together with its importance, education program is faced with a number of problems that hinders its full benefits. In Africa perspectives, education is characterized by high rates of wastage due to high drop out, absenteeism, and low achievement (*Coleman, 2001*). These obviously lead to low quality of education worsened further by poor teachers' preparation and motivation, inadequacy of infrastructure and learning materials eventually leading to poor performance (*Coleman, 2001*).

Together with the over all poor performance, there has been differences between different groups in the levels of performance. The research done by Komba *et al.* (1995) showed the gap of performance among primary school pupils between urban primary schools and those located in rural areas. In that research the findings revealed that the urban schools outperformed their rural counterparts. According to this study (opcit) the factors associated with the gap in educational performance between rural and urban areas is unpropotional distribution of human and material resources. For instance, Lawi (1984) cited by Komba *et al.* (1995) shows that there is a variation in the distribution of textbooks in availability and quality between urban and rural schools.

In some cases, urban schools are partly favoured because parents are much more aware on the value of education and therefore closely follow up things related to school improvement than their counterparts in rural areas. This can be verified by the description given by World Bank (1987) that rural areas in the third world are described as the home of impoverished people engaging in agriculture, lowly educated hence down looked in almost everything compared to urban areas.

However, it was noted by SIDA (1987) that in towns most of parents have higher income compared to their rural dwellers counterpart. Yet, those parents living in town are aware on the importance of education like supplementary tuition studies in response to declining quality of education than the rural dwellers do. However, it must be noted that the majority of rural dwellers are mostly poor when compared with most of urban dwellers. Probably the income differentials among these two groups of parents (that means, urban and rural dwellers) apparently tend to determine the school performance of their children. The same implication can also be noted even among the urban dwellers with income differentials

which might be one among other factors that contribute in checking the performance of students in primary schools. Thus there is a need for researchers to find the real cause(s) for the problem and come with an answer for poor performance in primary schools.

1.2 The Trend of Primary School Performance

There has been a slight positive correlation between a trend of primary school performance and economic potentials by regions in Tanzania. Despite the fact that the trend of performance by itself has been of the mixed faces, still the reality of the economic potentiality by regions matters most. The trend of performance is of mixed phases because it is characterized by rise and fall on the rate of students' performance (Table 1),(MoVET, 2008).

Table 1: Comparisons of primary school performance between Tabora region and some selected regions in Tanzania from the year 2000 to 2007

Year	Regions with highest and lowest primary school performance		*CAP (%)	*TBAP (%)
	* HIGH PF	* LOW PF		
2000 and 2001	Arusha, Dar, Lindi, Iringa, Dodoma, and Mwanza	Shinyanga, Tabora, Singida, Kigoma, Mtwara, and Tanga	26.5	25.5
2002 And 2003	Dar, Mwanza, Morogoro Mbeya, and Ruvuma	Coast region, Mtwara, Singida & Tanga,	33.5	16.5
2004 and 2005	Lindi, Kagera, Mwanza, Kilimanjaro, and Mara	Tabora, Singida, Kigoma, Rukwa, & Ruvuma	30.0	21.0
2006 and 2007	Dar, Kagera, Tanga Iringa, Manyara, and Tabora	Kigoma, Kilimanjaro, Shinyanga, Ruvuma & Mtwara	62.5	62.0

Source; MoVET, 2008

Key: * HIGH PF= High performers, * LOW PF= Low performers, *CAP=Country Average Performance, *TBAP (%) =Tabora Average Performance

The relationship between economic differentials by regions and student's school performance probably reflects the same situation of differences between school performance in urban and rural schools. The same phenomenon of income differentials can justify the assertion that student's school performance tend to vary with respect to the nature of the family (in terms of income level) a student comes from. For example economically poor regions like Singida, Kigoma, Tabora and Shinyanga have been performing poorly in primary school leaving examinations compared to Dar Es Salaam, Dodoma, Arusha and Mara which are counterpart regions (MoVET, 2008).

Despite the mixed faces of performance still these data (Table 1) tend to attract researchers to find out the relationship between school performance and economic potentials of some regions because they tend to correlate (URT, 2008). Moreover, Table 1 shows that most regions with good economy are also good performers in primary school leaving examinations while economically poor regions also are poor performers. Thus the data call one to find out if performance of a student has any relationship with the income of a family.

1.3 Problem Statement and Justification

1.3.1 Problem statement

The government of Tanzania, for several years has taken some measure to address the problem of poor performance in schools especially in primary schools. Some of the efforts made by the government of Tanzania in order to improve education performance in the country are many. Some of these efforts are like the Education Decentralization Program of 1972, the National Examination Council Act No 21 of 1973, the Universal Primary Education (UPE) and the Musoma Resolution in 1974 (URT, 2004). A review of the

existing education system was done in the year 1981 and the Presidential Commission on Education was constituted aiming at ensuring that policies were heading in the right direction towards the year 2000 with the purpose of improving education performance in the country.

Furthermore, National Task Force on Education (NTFE) was constituted in the year 1990 with the main purpose of reviewing, preparing and making Tanzania Education System suitable for 21st century. However the culminating of Education and Training Policy (ETP) in the year 1995 and currently the 2001 Primary Education Development Plan (PEDP) justify the government efforts in improving the education sector. These were put in place to ensure improved access to education and to improve the quality of education (URT, 2004).

It is therefore justifiable to undertake this study in order to identify the root cause in order to make the causes clearly known to researchers and educational planners for the purpose of designing sound strategies for the improvement of primary school performance in Tabora region.

1.3.2 Justification of the study

Given the fact that, primary school is the foundation of formal education all over the world its performance has been discouraging. The situation of poor performance is rather worse especially in the developing countries including Tanzania and Tabora region in particular. Thus there is a need to investigate the factors which directly affects education performance in primary schools in Tabora with the view of helping them to improve their performance. This study is in line with Millennium Development Goals (MDGs) No. 2 and 3 that stress on achievement of universal education at all levels by 2015. Tanzania Development Vision

(TDV) 2025; National Strategy for Growth and Reduction of Poverty (NSGRP); and Education and Training Policy (ETP). For example, the national primary school leaving examination results show that in the year 1999 primary school students whose number was 16 225 sat for national standard seven examination, only 1 798 passed, equivalent to 23%. However, in the year 2000 the number of students who sat for standard seven examination was 11 817 but only 1771 passed, equivalent to 30%. In the year 2001 the number of candidates sat for examination was 16,365 and only 1833 passed, equivalent to 23% while in the year 2002 the number of registered candidates was 17 099 but only 1725 passed, equivalent to 20%.

The same trend is shown in the year 2003 where a number of candidates sat for the examination was 17 346 but only 2665 passed, equivalent to 13%. The similar picture is shown in the year 2004 where the candidates sat for the examination was 17 347 but only 5078 passed, equivalent to 29% hence the region ranked 19 out of the 21 Tanzania mainland regions. However in the two successive years 2005 and 2006 by average only 50% passed their examination whereas in the year 2007 those who passed were 68% (MOVET, 2008).

The presented statistics show that, Tabora region has been, generally performing poorly in standard seven examinations compared to other regions in the country. The central question to ask ourselves is that, what are the factors influencing this situation? Why there is poor performance in the region than other regions? All these questions need scientific answers that can only be provided by in-depth analysis of the prevailing situation. Hence this study is justifiable.

1.4 Objectives of the Study

1.4.1 General objectives

The overall objective of this study was to examine the relationship between the parent's income and student's performance in primary schools in Tabora region.

1.4.2 Specific objectives

Specifically the study intended to;

- a) Investigate parents' income and children's school performance
- b) Investigate the extent of fulfillments of the materials and other things important for undertaking studies in the class and during private time.
- c) Investigate parental influence on managing students' time and other resources investing in education.
- d) Examine the relationship between parent's education level and students.
- e) Investigate the relationship between student's attending tuition and school performance
- f). Examine the relationship between distance from home to school and student's performance

1.5 Research Hypothesis

Based on the problem and specific objectives of this study, the following hypothesis was tested.

1.5.1 Operational hypothesis

There is relationship between income of parents and student's performance in primary school education.

1.5.2 Null hypothesis

There is no relationship between income of parents and students' performance in primary schools.

1.6 Conceptual Framework

The conceptual framework of this study (Fig.1) investigates each variable in relation to student's school performance. The extent of the provision of learning materials among students is the first and foremost factor considered for student's school performance. This implies that, given other conditions favorable, a student provided with study materials will do better than the fellow who hasn't. Incomes of parents at family level tend to influence the provision of learning materials to their school children. Learning materials has great influence on better school performance of an individual student.

On the other hand it should be also considered that time management of parents to their school children plays a vital role in student's school performance than when they are not. This implies that parents should set a home time table in order to ensure that a school child gets ample time for study than other activities. More over, it should be noted that distance from home to school as a factor tend to determine the school performance of a student. This means that a student arrives at school or home sometimes late or tired or both and therefore his concentration on studies are negatively affected.

Thus the conceptual framework (Fig.1) is based on the assumption that poor performance of students in schools is an inter-play of several factors. An assumption is that parents' education level, parents' income, home learning environment, attitude of a student towards education, and distance from home to school do influence students' performance. However,

student's time for attending extra curricular studies (tuition) in order to supplement some areas not well understood during normal classroom hours influences student's school attendance. Other factors like peers' influence on various matters including studies are also assumed to be one of the determinants of student's school performance. It should also be taken into consideration that individual student's self-study plays an important part in his or her school\ performance.

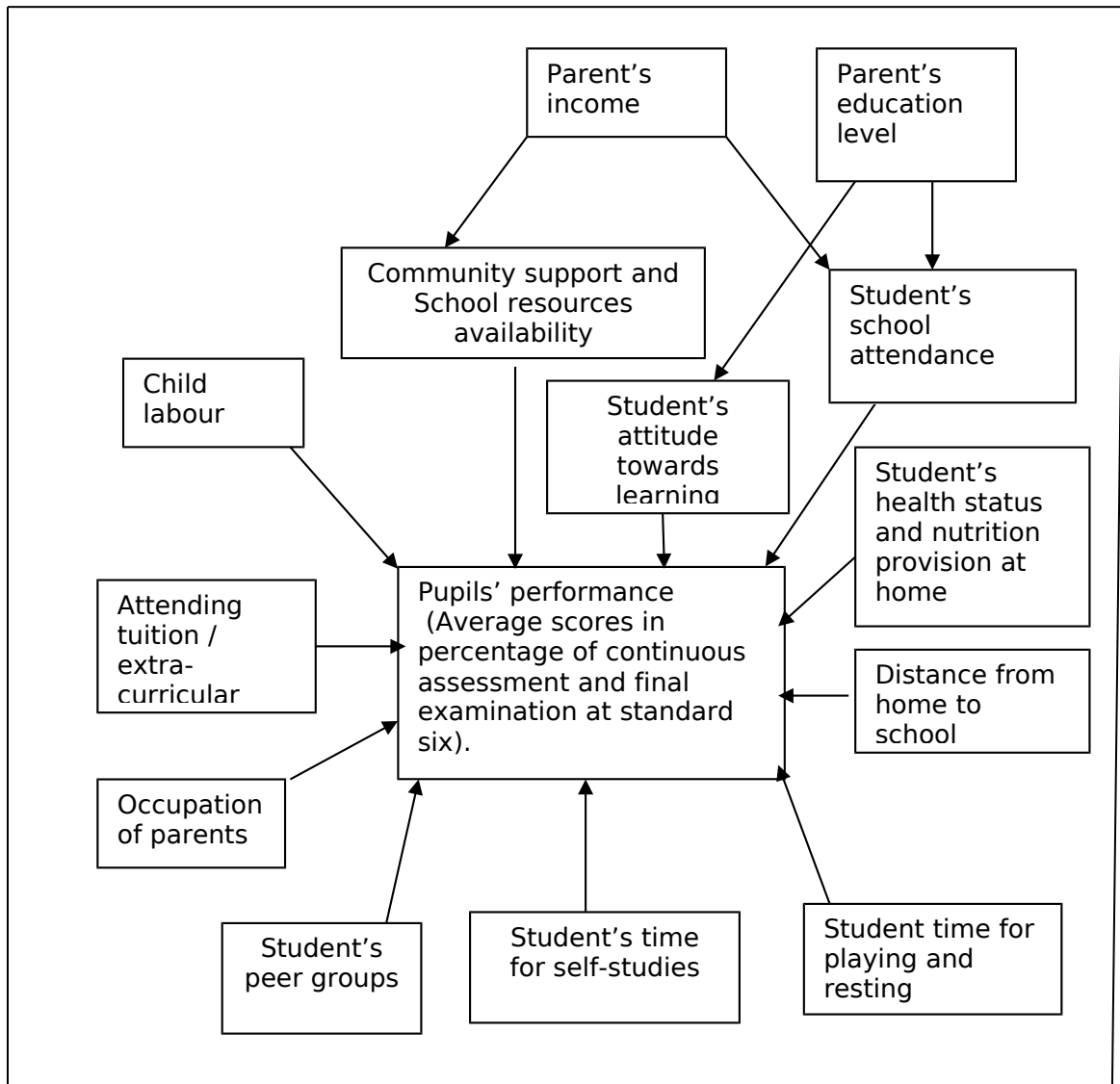


Figure 1: Conceptual Framework for the study of Parents' income and primary School Students' Performance.

1.7 Set up of the Dissertation

This dissertation is organized into five chapters. Chapter one presents the introduction of the work while chapter two is literature review. This (chapter two) shows different researches works done by various people in different parts in the world in similar discipline. Chapter three describes the methodology adopted for this study. The description of the study area, sampling procedures, data collection and process for data analysis are the key issues described in this chapter. Chapter four presents and discusses the results of the study. Specifically this chapter presents and discusses the factors that determine student's school performance. Finally, chapter five gives conclusions and recommendations emanating from the major findings of the study.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Theories of Education Performance

2.1.1 Motivation theory

Among the theories that explain about education performance includes the “Motivation theory”. The theory was established by Atinkson (1964) who advocated that motivation makes a person to strive for particular goal or results from the strength of the basic needs intended to satisfy him. The fundamental factor is the expectation that the goal will be achieved. Based on this theory the fundamental expectation of any student in education program is to make good performance, contextually defined as passing his or her examinations.

The motivation of a student includes parents' reinforcement of their children in academic matters like regular school attendance, attending of tuition, and catalyzing them in building positive attitudes towards learning and performance at large (Chinnapah *et al.*, 2000). Parents' aspiration of being recognized in terms of status and economic returns from the education investment of their children will motivate them create better learning environments to their children hence encouraging good performance.

An assumption is that students from well to do families are likely to be highly motivated in their education matters compared to their counterparts (Atinkson, 1964). The reason behind to this assumption is that most of the 'well- to do' families usually set goals in order to identify certain payoffs like recognition, promotion and status unlike their counterparts. Such kind of motivation will more positively benefit students from the well to do families performing better in their academics than their counterparts when other factors being held constant.

2.1.2 Goal- setting theory

This theory was put forward by Locke (1968) basing on the premise that a person's conscious intention regulate his/her actions. The theory states that 'Difficult (but attainable) goals result in higher performance than easy goals, and that specific goals get better results than general ones'. The theory further advocates that an individual who is committed to his or her goal will behave in such a way that the goal will be achieved, if possible. The goal not only will affect the efforts a person will exert in his /her level of performance but also influence the choice of behaviours, such as how time will be used and which work will methods will be employed (Locke, 1968).

Basing on the premises of this theory, a student who is highly committed to his studies will perform better than his counterpart that does not. A student, who sets his own time for studies, doing homework, attending classes regularly and self-study, will definitely perform better than the ones who do not. However, according to this theory, goals that are assigned by the supervisor will affect the subordinate's performances only to the extent that they are consciously accepted by that subordinate (Locke, 1968).

Like in any other organizations, schools and individual student's performance, according to this theory, is based on one's conscious intentions to regulate his or her actions. With growing level of conscious among parents definitely will influence their subordinate's performance (their children who are students) (Locke, 1968). This will make them (students) employ more efforts in order to make sure that their goals are met by using suitable methods of their choice that will result into better performance in their academics than those who do not.

2.1.3 Expectancy theory

Sometimes 'Expectancy Theory' is known as 'Performance-Expectancy Theory' which was put forward by Taylor (1954). According to this theory, an individual will be motivated to produce at higher level if he /she perceive that his or her efforts will result into successful performance. In other words, an individual must perceive that successful performance will result in outcomes or rewards .Thus, individual must specify how much he/she desires the various outcomes or rewards he/she will obtain given that he/she performs successfully.

However one should note that the link between perceived successful performance and desired rewards among individuals differ as one may desire it too much while the other may not consider it too important. The desired outcome can be 'intrinsic rewards' that relate directly to the nature of the work itself, that is, how interesting and challenging the work is or 'extrinsic rewards' that do not directly relate to the nature of the work. Thus, according to the theory, individuals continue to perform at a high level if they obtain intrinsic and extrinsic rewards they desire (Taylor, 1954).

Taking this theory into account, one must note that parents with high level of education tend to put more efforts on the education of their children than their counterparts. The underlying reason is that educated parents understand more about the education rewards they have got and therefore definitely they are aware of investing in education for their children when compared with their counterparts. Classroom assignments, home-works, tests and examinations are the used measures of student's performance that will be reflected at the final standard seven examinations. Thus expectant parents therefore should put more efforts in order to get successful performance of their children fulfilling their expectations.

2.1.4 The need hierarchy theory

Maslow (1954) theorized that performance is a result of individual employment of his efforts in order to achieve his needs. This theory underlies a logic that needs are arranged in a hierarchy, and that an individual seeks to satisfy them in a sequence. According to Maslow (1954), a person puts more efforts in order to achieve his needs, and once his needs are achieved, he goes to the next step of need. The series of such needs is what Maslow (1954) calls hierarchy of needs.

According to Maslow (1954) human needs are classified into five types in ascending order. They start with psychological needs as basic needs which are (food, water, sex and shelter). The psychological need is followed by 'Safety needs' which are (needs to be free from harm or danger, to have secure and predictable life). The third level of hierarchy of needs, according to Maslow (1954) is 'love or belonging needs'. According to this theory, 'love or belonging needs' means that beyond existence needs lay desire for nurturing, acceptance, respect and caring relationship.

Basing on the logic that underlies this theory that needs are arranged in a hierarchy, and that an individual seeks to satisfy them sequentially. At stage two of the Maslow's hierarchy of needs one wants to be free and secured. This includes freedom of mind through education, security of employments through education and the like. Thus, an individual will determine education in order to get satisfied from one education level to another and satisfy his or her needs, for example primary school level to another level (i.e secondary school level). Students during their studies should consider performance as one of their needs and that they need to be satisfied with higher scores compared with the ones a student got last time.

It, however, should be born in mind that the hierarchy of needs will only be achieved by those individuals who set goals and make them their needs to achieve. To this end, parents who want to satisfy their education needs and that of their children always should consider this theory and put it into practice for the better education performance of their children.

2.2 Definition of Performance

Performance, according to Robbins (1991), refers to the level at which a person attains his or her goal in a particular task. It is a measure of level of achievement for the given duties and responsibilities (Byars, 1987). Moreover, Karst and Rosenzweig (1974) define performance as the extent at which an organization meets its goal. Performance therefore is determined by individual efforts as modified by abilities and roles (tasks) perception.

2.3 Students' Education Performance

Education is considered as a systematic acquisition of knowledge through recognized agencies and controlled environment particularly that of school from elementary, primary, secondary, to higher education level (Zaharias, 2005). It encompasses teaching and learning specific skills, and also something less tangible but more profound. Fundamentally education imparts knowledge, positive judgment and well-developed wisdom. Education therefore means to draw out, facilitating realization of self-potential and latent talents of an individual. It is an application of pedagogy, a body of theoretical and applied research relating to teaching and learning processes. Thus, the major aim of education is to attain social competence and optimum personal development (Zaharias, 2005).

2.4 Considerations in Measuring Performance

Performance indicators are, by far, the most significant aspect in assessing the overall output from any organization unit (Watts, 1992). It replaces traditional input measures, like the number of students enrolled, with goal- or result- oriented estimates of outcomes or value-added, such as the quality and employability of graduates. Performance, so far to explain, is shown by indicators that are authoritative measure, usually in quantitative form

of an attribute of the activity of a higher education institution and they are the key instruments in a general course of evaluation (Power, 1995).

According to Karst and Rosenzweig (1974), many difficulties may be involved in measuring the performance of the organization since they have several goals and therefore to employ many criteria in measuring them. For example, business organizations tend to evaluate their performance in terms of profits, returns on investment, sale volume, market share, satisfactory customers, wellbeing and development of employees and so forth. Likewise, in learning institutions the measure of performance is done in terms of output of skillful students, service provided to the community, and so forth.

Thus, performance measurement involves effectiveness (the degree at which goals are accomplished) and efficiency (the use of resources to attain goals) and in most cases effectiveness and efficiency are related (Robbins, 1991). To this conclusion, a student is said to perform better if he or she attains his or her goal, in this context defined as passing his or her examination. The scores attained are used as measures to assess the level of performance in his or studies.

2.5 Students' Performance Worldwide

Education is becoming increasingly international (Zaharias, 2005). Not only are the materials becoming more influenced by the rich international environment, but also exchanges among students at all levels are also playing an increasingly important role. Educational performance worldwide however is a controversial issue. Some progressives or advocates often believe that the current grading system lowers students' self-confidence hence poor performance (<http://www.learningstyles.net/>). An example is that students may receive poor marks due to factors outside their control. Such factors include poverty, child abuse, and prejudiced or incompetent teachers.

An observation done by Craig and Heneveld (1996) on poor performance among students is a worldwide issue though it is so serious especially in the developing countries. Apart from Craig and Heneveld (1996), Borgen (2007) reveals that 115 million children lack access to quality education in developing countries. The number and seriousness of the problems faced are naturally greater that affect negatively their academic performance.

Epstein (1995) comments that sometimes people are unaware of the importance of education, and there is economic pressure from those parents who prioritize their children's making money in the short term over any long-term benefits of education. Recent studies on child labor and poverty especially among the poor households have suggested that when poor families reach a certain economic threshold where families are able to provide for their basic needs, parents return their children to school. This trend of irregular attendance to school has negative impacts on academic performance of a child hence bringing worries to the respective society.

Taking the whole issue of education into consideration the worry on poor performance in education is due to the fact that they lead to poor quality of education, which results on generation of incompetent graduates who will lead into incompetent personnel in various sectors of economy.

2.6 Students' Performance in Africa

In Africa except for a few countries, education is characterized by low performance, among other education challenges (Coleman, 2001). Low quality of education caused by uncondusive home learning environment, poor teachers' preparation and motivation, inadequacy of infrastructure and learning materials eventually leading to poor performance. Students' performance in Africa especially Sub-Saharan Africa is generally very poor (Garcia *et al.*, 2007).

Africa, when compared with other developing regions worldwide shows very poor performance in primary grades (World Bank, 2007). One of the newest challenges contributing to poor performance in the region include the rising number of orphans - now tolling 12 million - from the HIV/AIDS pandemic alone. However, statistics show that malnutrition in Africa has also increased in the last 10 years affecting intelligence quotients (IQs) of school children by 13 points. About 75 million of these children are chronically malnourished and stunted. Iodine deficiency disorders have been also found to reduce IQs of school children and that anemia causes many pupils to achieve less in their academics than their potential (World Bank, 2007).

2.7 Students' Performance in Tanzania

The examination system in Tanzania at primary level consists of an examination at standard four, continuous assessment with a final grade being awarded at standard seven and the primary school leaving examination (URT, 2002). Selection to form I is however, in practice, dependent on performance in the final examination. The pass mark for standard 4 examinations was raised from 25 per cent to 45 per cent (for a pupil to qualify for entry into Standard Five) through Circular Number 1 of 2002 (URT, 2002b).

Apart from performance in standard seven examination, selection to Form I was in the past done by using regional quotas and special consideration for females. This practice was discontinued effectively from 2002. In addition, by Circular No. 7 of 10/4/2002 the Ministry of Education and Culture raised the pass mark for Standard 7 examinations from 61 per cent to 65 per cent such that a pupil has to score at least 21.7 per cent in each subject was to be considered to have passed but later it was passed by Ministry of Education and Culture that pupils fail to get the pass mark which, in primary school is 60 out of 150 is therefore considered as failures (URT, 2002).

In Tanzania, despite the efforts made by the government like Universal Primary Education (UPE) in 1974; Primary Education Development Program (PEDP) from the year 2002 to 2006 still the situation of performance in primary schools is discouraging. The low quality of education infrastructures are directly linked to lack of funds for school inputs essential for adequate education delivery (Galabawa, 2001). However the scarcity of school inputs such as teaching and learning materials; school operation and other supplies are accounted. Others include teacher pedagogical support, professional training and the subsidy from central government.

URT (2001) points out the problems facing primary education to be low basically poor learning achievement and low pass rate. Sekwao (1986) quoted by Katabalo and Mbele (2003) identify problems affecting poor performance in primary school education in Tanzania. These problems are such as shortage of teachers, teachers' incompetence, and lack of teaching materials and HIV/AIDS pandemic.

However other factors include poor family background, insufficient classrooms/schools, and low income among parents, low education of parents, limited pre-primary schools, parents, broken families, financial constraints and lack of incentives to teachers. For instance, in primary school leaving examination the average number of students who passed their standard seven examinations from the year 2000 to 2007 was 38.2 per cent (Table 1).

2.8 Students' Performance in Tabora

Despite the efforts of improving education done by Tanzania government the prevailing situation of Tabora region is still rather worse. This is justified by the fact that among all regions in Tanzania mainland, Tabora region has mostly lagging behind in primary school performance. For example, excepting the year 2006, Tabora has been one of the bottom five performers in primary school examination in the country for four years consecutively (Table 1). Such a situation is alarming such that it needs closer attention for aversion.

However, most recent comprehensive results for Primary School Leaving Examination (PSLE) from 1999 show a wide range of passing rates from 35.43 per cent for Dar Es Salaam (35.0 per cent) to 11.81 per cent for Shinyanga (URT, 2006). The best four regions

being Dar es Salaam, Mara, Iringa, Kilimanjaro and Mbeya (in that order) while the bottom four; from last are Shinyanga, Tabora, Ruvuma, Kagera and Mtwara.

2.9 Factors Influencing Students' Performance

British researchers in the 1970s identified the extended list of factors that were thought to determine the student performance in schools (Mortimore *et al.*, 1979). The factors were identified as school environment like availability of school infrastructure, influence of school peer groups, quantity and quality of teachers. Home environment like parents' wealth, parents' education status, nature and size of households, and parents' attitude towards education play a great role. Other factors include; student's characteristics like truancy, time utilization by a student such as time for individual self-study, time for attending school programs regularly, frequency of illness and hospitalization, student's attitude towards learning and the like.

2.9.1 School learning environment

School environment should include both social and cultural characteristics of the school social system (Bookover *et al.*, 1976). The socio-cultural characteristic of the school is a function of nature of the teaching and non – teaching staff; number and quality of buildings; school furniture like tables and chairs/desks; students learning behavior; as well as order and discipline.

Several researches in literature have proved that quantity and quality of teachers in a given school with their high expectations for all students do contribute well in making an effective school (Purkey and Smith, 1983; Levin, 1990; Chubb and Moe, 1990). Thus,

many scholars have agreed that school learning environment is partly contributing to the performance of the student (Bookover *et al.*, 1976).

In effective schools, the concept of school as a place of commitment to learning is communicated clearly through the school head and teachers, and thus students' performance is monitored regularly (Purkey and Smith, 1983; Levin, 1990). In effective schools is a place where students' commitment to learning is sufficiently frequent and regularly done. Thus there is high expectation of student's confidence in his or her abilities that will result into better performances. To this end, it can be concluded that if the school environment is well improved, there is a probability of a student to perform well than when it does not.

2.9.2 Books and other learning materials

The modest government target ratio of one book per subject for every three pupils is largely met in the aggregate, but this does not translate into availability at the school level (Oxford Policy Management, 2001). The shortage of books ironically leads many teachers guard them tightly and hoard them in stores, further restricting access by pupils. In addition to the patchy provisions of textbooks, other books and learning materials are virtually non-existent. With the exception of relatively isolated projects (such as the 'Tusome Vitabu' – meaning, 'Let's read books' Initiative managed by CARE and E&D Publishers) schools do not have functioning libraries.

Because of lack of books teaching becomes of dictation and notes copying such that those children who always don't have books tend to perform poorly than those who get them (Komba *et al.*, 1995). In effect, this means that parents must purchase books and supplies

for their children. The costs of these can be significant and reach well over Tshs 30,000/= per child per year. The children of poor or unwilling parents go without, which further reinforces inequities in educational access (Oxford Policy Management, 2001).

However, experience shows that there is no close relationship between timetabling and available resource (Komba *et al.*, 1995). For instance, pupils enter the class while there is no subject teacher to teach a particular subject, shortage of working tools, shortage of teaching-learning materials could result into rearrangement of different activities at different periods to avoid wastage of time. One is forced to query how this impact on pupil's performance and quality of education offered.

2.9.3 Classroom attendance

Classroom attendance, according to Lockheed and Verspoor (1991), is the amount of time available for instruction by a student and teachers while at school. It is (classroom attendance) consistently related to how much students achieve in their high rate of success/performance. In other primary schools student's absenteeism and latecomers guarantee punishments hence students miss their classes leading to their poor performance.

Time spent in school (classroom attendance), both in terms of hours per day and a day per year obviously influence student's performance (Farrel, 989). A distinction needs to be made between the established number of days and hours per day and the actual time that the school is on operation. Thus, under normal circumstances children who spend more time studying in school learn and perform better than those who do not attend to school.

2.9.4 Distance from home to school

Distance that is traveled by a student from home to school is an important factor among for student's performance (TGNP, 1993). This is because most of the time is spent in traveling to and from school and might in some cases result in longer periods of absence from the classroom. Some of the direct costs of schooling (by parents) such as transportation costs and costs of meals at school vary directly with distance to school. The potential size of such schools would be enormous in many areas, and the distance required to walk would motivate parents to look for rented accommodation for their children near the school.

The present policy of double- shift in major towns exposes students to insecurity because of the lack of safe transport facilities. The school child should not travel beyond 6 km for schooling (in primary schools) called "*the 6 km principal*" (TGNP, 1993). Cochrane and Jamison (1982) cited by King and Anne (1993) found that the long distance to school negatively and significantly affected students' participation in primary school performance. Traveling long distances before arriving in school decreases their productivity since they arrive in school already tired. Long distances from home to school make students arrive at school late, missing the first lessons of the day (usually mathematics or science), or get back home too tired for any meaningful studies (King and Anne, 1993).

Students who live long distances from school in most cases are not able to participate in private tuition classes held after school hours or discuss homework assignments as they are expected to leave the school compound by a certain time or they need to hurry back home before darkness falls. When schools are some distances from home, parents tend to worry about the safety of their children and often are unwilling to let them go to school. All these

hardships frustrate students hence leading them into poor performance in their examinations.

2.9.5 The effects of peers

The potential effects of peers to individual student are central to many important policy issues in elementary and secondary education in many countries in the world (Epple and Romano, 1998; Caucutt, 2002). An effect of peers to individual student includes the impacts of an individual student's rejection by fellows in a classroom or school. It also includes the choice of subjects, ability tracking within schools, "mainstreaming" of special education students, racial and economic desegregation. Such kind of situation tends to lead the fellow group members disliking schooling and therefore performing poorly at their initial stage whereas the opposite makes true of the assertion, that means good peers will struggle in order to improve their academic performance.

Moreover, scientific researches have revealed that grouping students in classrooms by ability can likewise have significant impacts on student achievement, depending on the magnitude of peer influences (Epple and Romano, 2002). The effect of desegregation policies on achievement depends not only on potential spillovers from average ability, but on whether different peers exert different degrees of influence on individual outcomes of his or her studies (Angrist and Lang, 2004; Cooley 2007; Fryer and Torelli, 2005). The conclusion that can therefore be drawn from this explanation is that peers can influence their fellows either to do better or poorly in academics depending on the extent of the influence of a peer group to the individual student.

2.9.6 Home environment factors

Home environment is one of the facilitating conditions in the performance of a student (Lockheed and Vespoor, 1991). Home environment includes the provision with school learning facilities like stationeries and school uniforms, school fees as well as good nutrition to a student. **They** (parenting classes) help in creating less stressful home environment and making a strong and positive working relationship between parents and their children as well as teachers.

Listening and valuing adolescent ideas is what promotes the ability of parents to effectively communicate with their children (Anderson, 1993). Parents that do not listen well to their children's problems because they are too busy with work, community, church, and home responsibilities the performance of their children are not good compared to the ones who do when other factors are held constant. It is at home where talking about morals and ethical behavior and passing along a strong sense of values is one of the fundamental tasks of being a parent. Parents therefore need to talk to their children about their school progresses and how these children cope with their studies (Anderson, 1993).

2.9.7 Health-related factors and school performance

Health related factors that affect the performance of students in schools include the frequent of illness and or hospitalization of students themselves or sometimes one of the family member such that there is a need to attend him/her. This compels students fail to attend their classes as normal hence to lag behind their fellows. This will obviously affect their academic performance. Several literatures comment that there is a close relationship between health and academic performance (Lewallen, 2004). Research done by Lewallen

(2004) in North America about relationship between health and academic performance revealed that health-related factor such as hunger, physical and emotional abuse, and chronic illness can lead to poor school performance of a student. Health-risk behaviors such as substance use, violence, and physical inactivity are consistently linked to academic failure, and often affect students' school attendance, grades, test scores, and ability to pay attention in class.

In turn, academic success is an excellent indicator for the overall well being of youth and a primary predictor and determinant of adult health outcomes (Lewallen, 2004). Leading national education organizations recognize the close relationship between health and education, hence a need to embed health into the educational environment for all students. WHO (2004) reports shows that healthier students tend to perform better in their studies than when having poor health condition. However, when their parents / guardians as well as teachers do fall sick will also affect students from getting their studies properly hence to affect their performance. Thus frequency of illness and hospitalization of a student automatically affects student's school attendance, consequently affecting academic performance in a negative way.

The rising incidence of HIV/AIDS is another health-risk behavior (Coleman, 2001). It is eroding the gains made in education and it threatens future opportunities of schooling. The death of parents leads to child- headed households with no hope of schooling for such children. Resources that could have been used for education are used for caring for the sick. Any accumulated savings are spent on medication, which further impoverishes any survivors. Caring of the family income and caring for parents and younger siblings who are ill or dying have adverse impact on school programmes.

In the Sub-Saharan Africa, for example, the WHO (2004) reports that in 1999 alone, nearly 1 million children in that region lost their parents to AIDS including teachers. The cumulative effect of these deaths has been placing untenable burden on many countries in the region. This has led a good number of children to be pulled out of school to attend family problems such that they fail to catch up with their fellows who attend to school routinely.

2.9.8 Effects of nutrition on school performance

There is a complex interrelationship between nutrition, social and economic factors and health and education (Sorhaindo and Feinstein, 2006). Nutritional deficiencies prior to school entry have the potential to impact upon cognitive outcomes in school-aged and adolescent children, but much of the groundwork in cultivating food preferences in children is laid early in life – generally before the start of school.

Nutritional effects on cognition may operate in different ways and to different degrees such as follows; children with nutritional deficiencies are especially vulnerable to changes in metabolism that impact upon cognitive ability and performance of the brain (Sorhaindo and Feinstein, 2006). Evidence has shown that treatment with nutritional supplements can improve performance though among well-nourished children the impact is less pronounced. Thus maintaining adequate levels of glucose throughout the day contributes to optimising cognition. These findings have implications for the appropriate timing of meals and snacks through the school day.

However nutritional effects may affect not only performance but also participation and engagement at school (Feinstein, 2006). Poor nutrition may therefore result in decreased immunity and greater susceptibility to infectious disease. This in turn has the potential to lead to increased levels of absence from school through ill health that will consequently results into poor performance.

2.9.9 Parent's income and school performance

The family's education, wealth, and status of parents serve as locus of information, provides resources for the students, a good home environment for studying, materials to aid learning and financial resources to ensure the selection of certain school subjects (Levin and Lockheed, 1991). The households with good incomes may also mean that they can hire a babysitter to help at home and thus relieve school children from domestic work, employ a teacher to teach them at home, and provide money to pay for extra classes or excursions organized by the school (Torto, 2000).

The income of parents, in this perspective, influences learning preparedness that parents and community can provide to their children (Levin and Lockheed, 1991). These (learning preparedness) include the availability of pre-schools, good child health (high nutrition levels and low morbidity and parasite rates). It is an evidence of directed cognitive stimulation at home, that is, parents' income makes the positive parental influence of their children about the importance of schooling (Torto, 2000).

2.9.10 Parents' education level and school performance

The level of parents' education is a vital determinant of who goes to school and for how long among the boys and girls (Mtavangu, 2004). The parental perception of the value of

education is influenced by the level of education and awareness of benefits of education. The involvement of parents is an important element in a child's educational development (Weiner, 1979). Early and consistent parental involvement in the child's life, for example by reading to children at an early age, teaching patterns, inter-personal communication skills, exposing them to diverse cultures and the community around them, and educating them about a healthy life style, is critical.

Several findings suggest that parental education plays a substantial role in transmitting inequality in home among varied household and child outcomes (Cameiro, 2006). For example maternal education not only plays important role on education characteristics like employment, income, marital status, spouse's education, age at first birth, but also on several aspects of parental practices.

Various researches show that a mother's education influences her child's performance in academics (Cameiro, 2006). The fact is that more educated mothers delay childbearing, and that they are more likely to be married and have more educated spouses and higher family incomes. They invest more in their children and, even though they work longer hours, there is no evidence this leads to reduce quality time spent with children.

Although parental interactive behaviors have long been studied, much less is known about how such parents conceptualize their child's intellectual performance. One important theory of parental perceptions is attribution theory, with its three causal dimensions of locus, controllability, and stability (Weiner, 1979). Within achievement contexts, Weiner (1979) hypothesized that parents attribute their children's performance as mostly due to

two factors internal to the child (ability and effort) versus two external factors (luck and task) characteristics.

Craig (2006) comments that academic achievement of a student and parental involvements are strongly linked. Many schools, for example, are now beginning parental involvement programs in a more organized fashion in many countries in the world. In the United States this has been led in part by the 'No Child Left Behind Legislation' from the United States Department of Education (Craig, 2006).

The socialization and academic education of a child are aided by the involvement of the student, parents(s), extended family, teachers, and others in the community. Parent involvement is more than the parent being the field trip helper, or the lunch lady. Parents need to be asked about how their child learns best. They need to share their career expertise with the children. Today's educators need to remember that parents are the child's first and foremost teacher; parents, too, are experts, and teachers should learn from them (Ibid).

Maglad (1993) in his study about the factors that influence student's participation and attainment in school in the country of Sudan found that family background variables such as level of parents' education tend to influence the health and education performance of a child. However Rosenzweig and Schulz (1974) comment that the level of parents' education relate with type of occupation and income. These show capability of parents' affordability of education expenses like tuition, stationary, costs of transport and meals away from home.

Studies of investment in child quality like education and health have found mostly positive effect between the parents' education and these child qualities (Maglad, 1993). If the

parents' education is used as measure of the opportunity cost of their time spent rearing children, it could be argued that because of the opportunity cost of time of educated parents, they would desire fewer children. Yet, if the quantity and quality of children were substitute, by having fewer each child would have greater chance to be enrolled into school and perform well (Maglad, 1993). Thus, a positive effect of parents' education on the schooling of children could be a result of a positive wealth effect, since education is usually associated with earnings (Psacharopoulos, 1981).

Thus, parents generally attribute their child's negative behavior or poor performance to external, unstable, or situational factors, whereas positive child behaviors are thought to involve internal, stable, and dispositional factors (Cohen, 1995). Similarly, parents are more likely to attribute their child's development of skills to talent as opposed to effort and teaching (Cashmore and Goodnow, 19986).

2.9.11 Parents' occupation and school performance

There are several literatures that give evidence that individual's type of occupation, in most cases, is determined by one's level of education. An assumption is that there is closer link between parents' level of education and type of occupation. According to Rosenzweig and Schulz (1974) parents' level of education and type of occupation generally tend to determine the level of family income. Parents' occupation and or level of education are regarded as bundle of entitlement that could be used in child's education investment whenever the cash are not found (Senni, 2001).

Parents' occupation is rather vital in student's school performance as it determines family resources availability (income and expenditures) including school expenses. Parents' occupation tend to influence student's learning capability as he /she may desire to be like one of his/her parent when grown up. Parenting classes, including occupation of parents helps children to learn ways of providing consistency, structure, and a positive **behaviour** (Phillips, 1994).

Parents' occupation sometimes has been detrimental to children as most parents do not listen well because they are too busy with their works, community, church, and home responsibilities apart from school related activities to their children (Phillips, 1994). This leads to poor performance among those children whose parents, according to their occupation, never take troubles in order to help them in their academics compared to those who do when all other variables are held constant. Thus, parents' occupation can influence to student's performance either positively or in a negative way depending on how a parent struggles for academic betterment of his/her school children (Anderson, 1993).

2.9.12 Student's time management and school performance

Different institutions, curriculum – planning unit, school administrator, parents and other close relatives, and partly pupils themselves do time allocation in different activities (Malila, 2003). In Tanzania, curriculum time is allocated by Tanzania Institute of Education, which is based on the subject content, carefully estimates behaviour on academic activities. As such teachers and pupils have to balance their day- to- day activities. School administration allocates time for different activities according to the 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 pupils home activities differently depending on their priority. For example farm work first, then schooling, or schooling first then domestic chores and the like. Hence pupils themselves, depending on the age, sex, interests, educational level, socio – economic status, locate and distribute their 24 hours of a day in different ways.

Lockheed and Verspoor (1991) comment that the amount of time available for instruction as well as how time is used by students and teachers while at school and parents while at home is consistently related to how much children (students) achieve in their high rate of success. Time availability therefore should be looked in both at school and home environments as well.

Moreover, Malila (2003) adds that pupils especially those at adolescent age, direct their behaviour being with peers, involvement in club activities, watching television, listening to music, driving cars, participating in sports and games, cooking and other home activities, learning and praying. Thus, it can be concluded that the pupil's behaviour in a particular activity depends on the priority of a decision- maker for time use and the number of the activities to be performed.

The report from ILO (2004) indicates that parents in the poorest households who send their children to school not only incur the direct and indirect costs of education but also the opportunity cost. This is the wage that the child would earn if the time at school were spent working assisting their parents in home income generating activities. These include long periods of isolation and working hours away from home leading to physical and

psychological trauma of their parents such that sometimes they are tempted to retain them at home assisting some domestic activities (ILO, 2004).

Time management also involves parents helping their children with homework and ensuring them that they attend to school regularly. It also encompasses the provision of enough time for self-studies while at home as well as attending extra studies despite the fact that there are also times for playing, resting and the like.

Thus, frequent monitoring of students' progress by both teachers and parents are constructive factors for enhancing students' motivation and achievements. Monitoring of students' work will help teachers and parents diagnose what students know and where further instruction is needed. Researches from developing countries demonstrate the effectiveness of close monitoring of students work and prompt constructive feedback these positive results elsewhere (Arrigada, 19981; Lockheed and Komenan, 1998).

2.9.13 Other socio-economic factors

Some other factors that determine performance of an individual student include student's self-concept, nature of households and effects of peer groups.

2.9.14 Student's attitude towards learning

Tajfel and Turner (1986) commented that among the factors that influence performance of a student is self-concept which influences his/her attitude towards learning. Students with high self-concept are more popular, cooperative, and persistent in class work and conceive positive attitude towards learning hence they have lower anxiety levels in their studies

(Weiner, 1979). Self-concept therefore, determines one's levels of competence hence to influence his or her performance.

Self-concept is strongly influenced by contingencies given by students significant others which therefore will lead to the positive learning attitude that will result into improvement of an individual performance (Tajfel and Turner, 1986). Therefore, the levels of self-concept, and very specifically levels of perceived competence optimize levels of performance. These kinds of people have more supportive families and that they have higher expectations of the future that will improve their school performance.

2.9.15 Effects of peers on school performance

The potential for peers to affect individual achievement is central to many important issues in elementary and secondary education (Sass, 2007). These effects include school choice programs, ability tracking within schools, "mainstreaming" of special education students, and racial and economic desegregation.

The supposition underlying various studies reveal that student's innate characteristics, aptitudes, motivation levels, fixed habits, and learning rates, constitute the main channels by which school peers influence each others' outcomes. For example, students may learn directly from peers based on their high aptitude levels and knowledge of a subject. Thus, students may benefit from having well-behaved peers who create a classroom atmosphere that is conducive to learning, or they may free ride on classmates' questions or superior note-taking skills (Sass, 2007).

2.9.16 Effects of tuition on school performance

Bray (1999) comments that private tutoring or private tuition is a phenomenon, which is practiced in a number of countries, developed and developing alike. However, it was noted by Mbelle and Katararo, (2003) that at primary school level tuition is a very significant determinant of final continuous assessment grade and selection into form one. According to Mbelle and Katararo, (2003) tuition influences final continuous assessment grade at secondary school level significantly though it is not significant in determining national form four results.

This is due to the reason that tuition helps to cover those topics not covered or well covered in the classroom during normal class hours hence to improve student's performance. However, tuition helps for more understanding of a student (i.e., more clarification in some parts not well understood during the normal class hours.

2.9.17 Nature of household and school performance

Nature of household explains about the individual who bears the household responsibilities (Jel, 2007). In households that are headed by women or children because of incidents like deaths, definitely the household labour is very small enough to serve the family, yet human capital based on man's experiences is get reduced (Semela, 1997). In such families poverty is consistent with the expectation that the supply of child labour will possibly increase the household's incomes. This imply that in pursuing asset accumulation-based poverty alleviation policies, attention should be paid to the possibility that this will encourage households to withdraw their children from school in order to take advantage of the increased returns.

Thus, Students from female headed households (which are generally poor) usually attend their studies very sporadically and that they can't catch up with their fellows properly resulting into poor performance academically (Tang, 2001). However, it must be born in mind that it is the family that decides whether a child is to go to school or attend home-related activities which definitely affects student's school performance in a negative way.

2.9.18 Size of the family and school performance

Several studies have shown that there is a positive correlation between family size and pupil's education performance (UNESCO, 2005). According to Jel, (2007) most of households in developing countries are of large size (called big families), which, however, are poor. Because of such poverty child labour is overwhelmingly performed for the child's own household in the absence of a smoothly functioning child labour market. The demand for child labour plays a major role in child time-use decisions and that the demand varies substantially between households according to their asset profiles and household composition.

This (size of the family) implies that children in small families tend to perform better than those in large families. This is because encouragement is low in large families because of parents' responsibilities to the many family members when compared to small families when other factors are held constant (UNESCO, 2005). However, in smaller families parents are able to spend more time with each child, thus enhancing their children's verbal and cognitive development and consequently their educational performance and attainment. Household family size in most cases act as a determinant whether which children will be educated and for how long (Jel, 2007).

2.9.19 Effects of child labour on school performance

Inequality is increasing around the world as there is a creation of the largest gap between rich and poor although the world appears to globalize (UN, 2007). According to “The Borgen Project” (TBJ) 115 million children lack access to education due to poverty hence ending up working in plantations, mining centers, fishing and domestic related activities (ILO, 2007). Some other children attend their classes irregularly as they supplement family labour by working in various areas like plantations, petty business and other related jobs. When a school child gets engaged in business, obviously his /her performances will drastically becoming poor due to sporadic attending to school unlike their counterparts who do not.

In developing countries, the number and seriousness of the problems faced are naturally greater. Recent studies on child labor and poverty have suggested that when poor families reach a certain economic threshold where families are able to provide for their basic needs, parents return their children to school (ILO, 2007). This has been found to be true, once the threshold has been breached, even if the potential economic value of the children's work has increased since their return to school.

Hideo and Psacharopoulos (1993) once pointed out that students tend to miss their classes by attending farm works (sisal plantations) as they are regarded as one of the family's human capital. Recent findings have shown that areas of Urambo-Tabora; Iramba-Singida and Mpanda –Rukwa students leave school in order to work in tobacco and sunflower plantations. The similar incidents is noted in Geita mining centers; Ilemela fishing area and Mererani mining center while in urban areas school children leave their schooling in order to run petty business especially at bus terminals (ILO, 2007).

2.9.20 Effects of community support and school resources availability

Community material support plays a vital role on education development including student's performance (Daniel *et al.*, 1992). Community material support can be in the form of money, i.e. establishment of community education fund, construction materials like timbers, bricks, stones, sand, water, or even in terms of labour. Following examples from other countries this is highly done in Tanzania both in primary and secondary education.

In community education support there must be frequent positive communication between school and community such as 'award days' and 'parent days' (Blum, 1990). In some countries like Ghana, Democratic Republic of Congo (DRC), Madagascar and Mali have introduced campaign of de-worming tablets to school children as well as establishment of micro-nutrient supplement fund (Heneveld and Craig, 1996). All these community campaigns target at ensuring students' good performance in their studies.

Moreover community education support involves parents/community advisors in school improvement efforts like members of school board and the like (Heneveld and Craig, 1996). Some literatures show the evidences of parental involvement in students' home work, provision of good diet that reduces the rate of hospitalization and students to attend remedial classes (tuition). Other parental/community involvement in students academics include buying of school stationeries like exercise books, text and reference books, pens and pencils as well as school uniforms aiming at better performance of a student in his/her studies.

2.10 Review of Similar Studies on Factors Affecting Student's Performance

Various studies conducted by several researchers have shown that there are several factors suggested to significantly affect student's performance in general. Giddens (1989) discusses social and family background, school environment, as well as student's behaviour as major factors that determine student's performance.

Alderman *et al.* (1996) did their research in rural Pakistan about school performance and income of households. The aim of their study was to observe the relationships between household incomes and test scores among students from those households. Secondly, they wanted to investigate the extent of the gap explained by income associated differences in (a) availability of schools; (b) the probability that the children start school (conditional that schools are available); (c) schooling attainment (conditional on starting school); and (d) school quality; household environment and/or community characteristics.

The collected data were analyzed using Cobb-Douglas model in which cognitive skills was hypothesized to be the product of reasoning ability, an index of home learning environment and gender was also considered. The aim of using the very model was to examine the extent and direction of relationship at which household income influence enrollment and scores among students from those households. After the analysis the results showed that high income households are more likely to enroll their children in school not because they have income but because their influence on schooling and that this does not guarantee their children to perform better in their studies.

The study by Hideo and Psacharopoulos (1993) in Tanga, Tanzania was about primary school performance. The aim of their study was to investigate the degree at which work

and human capital development can trade-off relationship in developing countries. Specifically, they wanted to analyse the extent at which social services, household investment in education and health affect school performance in the region.

Data were collected and analysed using “Factor analysis model” in order to break down each factor and examine its significant effect on the performance of primary school student. The results revealed that children from wealthier households tend to work less at home hence give their children more time for study and therefore to influence their school performance positively. In their study, Hideo and Psacharopoulos (1993) also noted that wealthier households tend to hire even a baby sitter who will supplement some domestic works and leave the student more time for study. The fact is that working hours at home tend to decrease hours of study although it is not true that every time a child is studying because there is time for sleeping, playing, and relaxing.

Tansel (1997) conducted a research in the countries of Ghana and Cote d’Ivoire, about household income and schooling attainment. The major aim of his study was to examine the extent of relationship at which income checks schooling investment decision in mono-economy oriented countries. In his study, Tansel (1997) used multiple regression model in data analysis in order to trace the magnitude at which income influences schooling. Variables such as family income level, education of parents, school attendance and distance from home to school were analysed. The results of his findings showed that declining of income at national level led to negative impacts on education achievement in these countries. Therefore his findings concluded that schooling attainments of children in school are strongly related to the national income.

William and Zamalisana (1992) conducted a research in Malawi about factors that determine school performance of a student in primary schools. Their major aim was to investigate the factors that determine primary school students' performance in Malawi. No model was shown to be used in data analysis. In their findings, William and Zamalisana (1992) found that children from low income earning families majority tend to perform poorly in their academics. According to the research results, one of the basic reasons that were identified included parents' lack of money to afford school costs. Buying of school facilities such as learning materials like books both (text books and reference books), school uniforms and that it affected even students' school which became rather irregular and finally affecting their school performance in a negative way. Further more, William and Zamalisana (1992) noted that students from low income earning households reached the point of dropping out from their studied. This was because of, according to the research findings, lack of school fees or their parents/ guardians failed to fulfill the school needs of their children due to abject poverty.

Another research was conducted by Bedi and Marshal (1999) in Rural Honduras. Their study was about school attendance and students achievements. The main objective of the study was to investigate the relationship between school attendance and performance. Data were collected and analysed using regression analysis. The aim of using this model was to test the extent of influence for each factor, among the assumed factors, on the student's performance. School attendance in this context, according to the study, should mean the time students spend while studying in school environments. According to their findings, the results showed that students that do not attend to school regularly tend to perform poorly compared to those who are always attending to school when holding other variables constant.

Malila (2003) in his research, Dodoma, Tanzania about effects of time management in secondary school and performance found that time management is so important in academic performance. The aim of his study (Malila, 2003) was to investigate at what extent time wastage affect secondary school student's performance. During his study, data were collected and analysed using Multiple regression model in order to examine the probability among students who utilize better the time for studies and who do not. Results of his (Malila, 2003) findings showed that time helps in accomplishing individual's assignments and reaches his goal. Time therefore must be taken into consideration as one of the limited assets and that should be utilized very carefully. The research findings conclude that students usually perform poorly in their studies because they don't consider time management. According to the research time utilization should mean how much time is spent in school and at home in terms of hours per day and days per year solely in academic matters.

Temu (1995) in his research about the relationship between parents' education level and children's performance in Tanzania found that the educational level of parents has an impact on student's performance for both government and nongovernmental schools. According to Temu (1995) it does not account, whether the child receives individual tuition of the teacher after regular school hours, or whether the child is assisted doing homework. The fact is that children are inspired by their parents in their occupation and level of education. Thus, naturally children will perform better in their academics if their parents are highly educated than their counterparts because human being always inspired by motivations including education level of parents to their children.

Owens (2007) compared various levels of parent education and their involvement in their children's education. Slightly deviating from the pleas of Temu (1995), Owens (2007) found that student's achievement increases directly with the extent to which parents engaged in their children's academic programmes. However Owens (2007) noted that parents with high level of education their involvement ratings in educational matters of their children are higher compared with those with low level of education. Such parents' involvement leads to better performance than those parents who do not.

Sass (2007) studied about influence of peer groups on school performance in Northern America. His aim was to investigate at which level peer group tend to affect one's behaviour especially students in their school performance. In his study data were collected and analysed using regression analysis in order to measure the extent and direction of peer influence on student's school performance. The results showed that student's innate characteristics, aptitudes, motivation levels, fixed habits, and learning rates, constitute the main channels by which school peers influence each others' outcomes. According to Sass (2007) students may learn directly from peers based on their high aptitude levels and knowledge of a subject resulting into better performance. Thus, students may benefit from having well-behaved peers who create a classroom atmosphere that is conducive to learning, or they may free ride on classmates' questions or superior note-taking skills. If the chosen peer group is disliking schooling there is also a possibility of a student to perform poorly in his or her studies. The effect of peers on the individual student will depend on the exerted degrees of influence on the individual outcomes

Sorhaindo and Feinstein (2006) doing their research in northern America about nutrition and school performance found that nutritional deficiencies prior to school entry have the

potential to impact upon cognitive outcomes in school-aged and adolescent children. The aim of their study was to find if there is any relationship between nutritional deficiencies and school performance among students. Multiple regression analysis was used in analyzing the collected data in order to establish the extent of relationship among variables. The results showed that there is a clinical association between early life vitamin B12 deficiency and reduced scores on cognitive tests in adolescence. This means that children with nutritional deficiencies are particularly susceptible to the moment-to-moment metabolic changes that impact upon cognitive ability and performance of the brain. Thus, treatment with nutritional supplements can result in improved performance.

Nutrition, particularly in the short-term, is believed to impact upon individual behaviour, (e.g. concentration, activity levels). These behaviours have the potential to affect school performance and interaction with peers, and to compromise self-esteem. For example, lack of thiamin (Vitamin B) in the diet appears to have causal relationship with behavioural problems in adolescents, such as irritability, aggressive behaviour and personality changes. Therefore, interventions designed to promote healthy eating among children should address all of these factors.

Moreover, Jel (2007) researched on effects of nature of household on school performance in Ethiopia. Using "Factor analysis" in his study, data were analyzed and found that nature of a household significantly affect school performance of a child. According to Jel (2007), research results showed that households headed by females, are mostly lack effective labour and man's experience and that can loose close care of children compared to those headed with males. The fact is that, (according to Jel, 2007), most patriarchal societies males are the most household bread winners and that any incident of lack of males as

household heads will likely affect most of household programs including students academics leading them to perform poorly. Thus the research findings conclude that nature of a household is a determining factor for student's performance as male headed households students are likely to perform better in their studies than female headed households.

2.11 Review of Methodological Aspects and Tools Used to examine Factors influencing Students' School Performance

2.11.1 Factor analysis

Factor analysis is a statistical method used to describe variability among observed variables in terms of fewer unobserved variables called factors (Gorsuch, 1983). The observed variables are modeled as linear of the factors, plus "error" terms. The information gained about the interdependencies can be used later to reduce the set of variables in a dataset. Factor analysis assumes that all the rating data on different attributes can be reduced down to a few important dimensions. This reduction is possible because the attributes are related. One of the advantages of "Factor Analysis" is that it can be used to identify the hidden dimensions or constructs which may or may not be apparent from direct analysis (Gorsuch, 1983).

However, its disadvantage is that its usefulness depends on the researchers' ability to develop a complete and accurate set of product attributes. Yet, its observed variables are completely un related. Factor analysis is unable to produce a meaningful pattern (though the eigenvalues will highlight this): suggesting that each variable should be given a factor in its own right. Thus with such weaknesses, this study will not adopt "Factor Analysis" as a tool for analyzing its data.

2.11.2 Linear regression analysis

Linear regression analysis is a statistical tool for the investigation of relationships between variables (Alan, 2007). Usually, the investigator seeks to ascertain the causal effect of one variable upon another. The investigator typically assesses the “statistical significance” of the estimated relationships, that is, the degree of confidence that the true relationship is close to the estimated relationship (Richard, 2004).

In regression analysis the hypothesized relationship between variables are done in a linear form and it is presented as follows;

$$I = \alpha + \beta E + \varepsilon$$

Where;

α = A constant variable

β = Coefficient of the variable E (Parameters of estimation)

E =Independent or explanatory variable

I =Dependent variable

ε = An error term (reflecting other factors)

One of the advantages of regression analysis is that it is simple to operate as the task of regression analysis is to produce an estimate of these two parameters (as estimation of linear regressions becomes much simpler and their statistical properties are better known) based upon the information contained in the data set (Freedman, 2005).

Though the estimation of regression analysis is simple the basic limitation of all regressions is that one can only ascertain relationships, but never be sure about underlying causal mechanism among the variables (Dennis, 19982; Freedman, 2005). Moreover, regression analysis usually estimates only the information available, and when the standard errors are high the estimate may be among the least reliable information available (Freedman, 2005). By showing such weakness the tool (regression analysis) will not used in the analysis of this work.

2.11.3 Multiple regression analysis

Multiple regression analysis refers to techniques for the modeling and analysis of numerical data consisting of values of a dependent variable (also called response variable or measurement) and of one or more independent variable (also known as explanatory variables or predictors) (Robert, 2004). The dependent variable in the regression equation is modeled as a function of the independent variables, corresponding parameters ("constants"), and an error term. The error term is treated as a random variable. It represents unexplained variation in the dependent variable. The parameters are estimated so as to give a "best fit" of the data. Most commonly the best fit is evaluated by using the least squares method, but other criteria can be also used.

The linear regression analysis includes the assumptions that, the sample must be representative of the population for the inference prediction. Secondly, the error is assumed to be a random variable with a mean of zero conditional on the explanatory variables. Moreover the third assumption with this model is that the independent variables are error-free. If this is not so, modeling may be done using error-in-variables model techniques.

In multiple linear regressions takes the form of

$$y_i = \beta_0 + \beta_1 x_i + \beta_2 x_i^2 + \varepsilon_i, \quad i = 1, \dots, N$$

Where;

y_i = Dependent variable

β_0 , = A constant variable

β_1 = Parameters of estimation

x_i = Independent or explanatory variable

ε_i = An error term

One of the major critics of the regression model is that it suffer from statistical criticism as being misused for taking considerably more skill on causality relationships among variables but not a cause itself. This makes a model to be more subjected to criticism than to fit a model. Due to such shortfall, however, this model will be not adopted in this study.

2.11.4 Logistic regression model

Logistic regression or logit model is defined as the univariate binary model (Liao; 1994). That means for dependent variable Y_1 can be only one or zero and continuous variable X_1 . Logit model shows the probability of an event stated in the three trials; on average, the event to occur twice and the failure to occur ones.

Logistic regression is useful for this kind of a situation where prediction of pass or failure bases on values of a set of predictor variable is needed. This model is similar to a linear regression model but it is suited to models were the dependent variable is dichotomous.

The logistic regression coefficient can be used to estimate adjusted odds ratios for each of the independent variables in the model (Mendenhall, 1989; quoted by Kikula *et al.*, 2005).

The logit model shows that dependent variable Y_1 can be only one or zero and continuous variable X_1 and that the natural log of the odd ratio is the log odds, which is the “parameter estimate” in SPSS Loglinear output (Mendenhall, 1989).

The advantages of logistic regression is that Logistic regression can be used to predict a dependent variable on the basis of continuous and/or categorical independents and to determine the percent of variance in the dependent variable explained by the independents; to rank the relative importance of independents; to assess interaction effects; and to understand the impact of covariate control variables. The impact of predictor variables is usually explained in terms of odds ratios (Allan, 1999).

In this study the analysis of the outcome of the response is pass or failure which makes the major interest in the likelihood or probability of the outcome. Because Logit analysis deals with binary responses which, however, are the basics in this study (i.e. pass or fail) this model is rather more effective in analyzing the used research data and for that matter, the logit model will be adopted in this study.

2.12 Specification of Empirical Model (logit model)

According to Power and Xie (2000), logit model can be statistically expressed as follows;

$$\text{Logit}(P_i) = \log \frac{P_i}{1 - P_i}.$$

This means, logit expresses odd ratios between an interest group (intended sample in a set to the un-intended one-called group of no interest). For example, the ratio of probability that student from rich families performs better than those from poor families.

$$\text{That is; } L_i = \ln \frac{P_i}{1-P_i} = Z_i$$

NB:

Z_i varies from $-\infty$ to $+\infty$; and that $Z_i = \beta_1 + \beta_2 X_i$.

Thus, $L_i = \text{logit}$.

$$\begin{aligned} \text{In other words, with logit, } \log &= \frac{P_i}{1-P_i} \\ &= P_i = \frac{a}{n} \\ &= \left(\frac{a}{n}\right) / (1 - a/n) \end{aligned}$$

Log (P_i) = a: n-a in order to show the ratio.

In other words, the logit becomes negative and increasingly large in magnitude as the odds ratio decreases from 1 to 0. Becomes increasingly large and positive as the odds ratio increases from 1 to infinity. Thus an estimation of the logit Model is shown as;

$$L_i = \ln \frac{P_i}{1-P_i} = \beta_1 + \beta_2 X_i + \mu_i$$

Where;

X_i = Value of regressand

μ_i = Term error

With individual data a logit $P_i=1$ if a student passes

$P_i = 0$ if a student fails (otherwise)

Although, one may have included only a single X variable or regressor, one can add as many regressors as may be dictated by the underlying theory, this is one of the features of a logit model (Gujarat, 2003).

It should also be borne in mind that logit model usually takes two forms, it can be expressed either in terms of logit (as it is expressed as ratios; $\log [p (y=1)/1-p(y=1)] = \sum_{k=1}^k \beta_k X_k$ or can be expressed as an event of probability because now it assumes the probability that the event A occurs, or $\text{Prob}(Y=1)$, μ becomes the

expected probability that $Y=1$). For example, $\text{Prob} (y=1)=1-F \left(- \sum_{k=1}^k \beta_k X_k \right)$

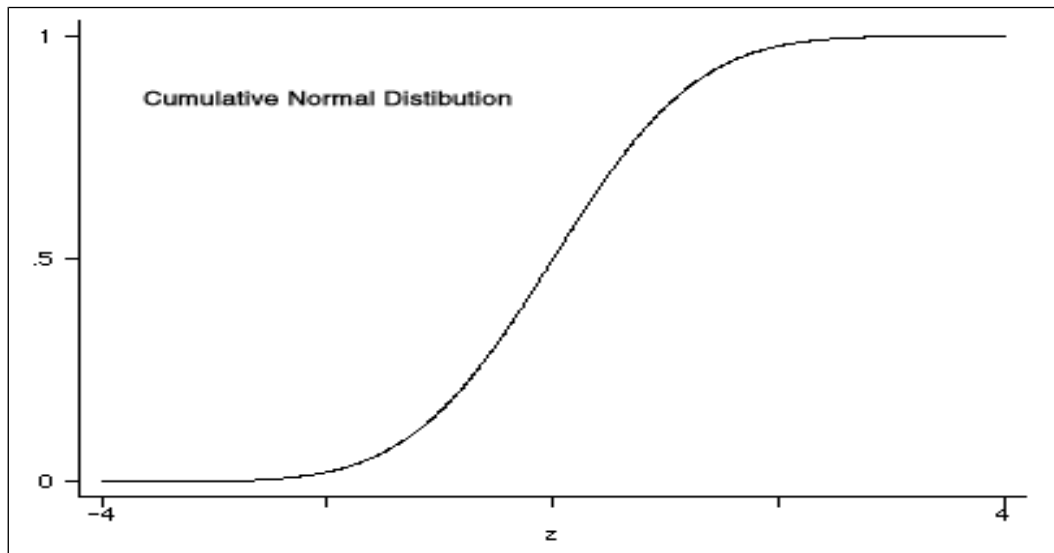
(Liao; 1994). We should also think about the logit, which is symmetrically distributed around a central value. When $P=0.50$, its reciprocal value is also $1-0.5$, hence the natural log of this ratio is $L_i = \text{Log} (0.5/0.5) = \log 1 = 0$. But as the dichotomy becomes more extreme in direction, approaching 0 or 1, the logit values move further apart as shown Table 17:

Table 2: Symmetrical distribution of Logit around central value

Pi	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90
1-pi	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.10
Logit	-2.20	-1.39	-0.85	-0.41	0.00	0.41	0.85	1.39	2.20

Note: Although no upper or lower limit exists for the logit, when P_i exactly equals 1.00 or 0.00, the logit is un-defined. (Liao; 1994).

Graphically, it can be represented as follows;



Source: Liao, 1994.

Figure 2: Cumulative normal distribution curve

Translation of normal phenomena in relation to factor usually changes. Say income, X_i such that the larger the value of index I_i , the greater the probability of a student to pass depending on the economic position of parents (Gujarat, 2003).

Utility index $\mu = \beta_1 + \beta_2 X_i$

Where:

X_i = Income of the μ th parents /family

So, $P_i = P(y=1/x) = P(\mu_{i_1}^x \leq \mu_i) = P(Z_i \leq \beta_1 + \beta_2 X_i) = P(\beta_1 + \beta_2 X_i)$

NB: Since the normality (normal equivalent deviate) or I_i will be negative Where $P_i < 0.5$, in practice the number 5 is added to the normal equivalent deviate=Probit (Gujarat, 2003).

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Study Area, Location and its Characteristics

3.1.1 The Study Area

The research was conducted in Tabora region specifically in Tabora Municipality. The major reason (s) of choosing the area is that academically the region has been doing poorly in primary school leaving examination. In 2004 for instance, the region ranked 19 out of 20 Tanzania mainland regions in the standard seven national examinations with 70% failures. In 2005 it ranked 20 out of 21 regions with 69% failures and in 2006/07 Tabora had 32% failures of all candidates who sat for the standard seven national examination (REO'S; TABORA,2007). Low level of education in this area is a big problem especially for rural dwellers (Tanzania National Economic Survey, 2004). This might be due to nature of the region's economy as the majorities are agriculturalist (small hold farmers); pastoralists who tend to value their animals than education-after all the majority are illiterates (URT, 2004).

Location of the Study Area

Tabora Region is found in the mid-western part of the Tanzania (mainland) on the Central African Plateau between latitude 4⁰ and 7⁰ south of Equator and longitude 31⁰ to 34⁰ east of Greenwich. To the north it is bounded by Shinyanga region and in the east it borders Singida Region. Its border neighbours to the south is Mbeya Region. It shares common border with Kigoma Region in the West (URT, 2004).The study focused on primary schools because Tabora is one of the regions in Tanzania whose primary schools performance have been poor for years.

3.1.2 Characteristics

Administrative units

Tabora region has six districts, Tabora Municipality, Uyui, Nzega, Urambo, Igunga and Sikonge. The region is positioned at the mid-western part of the country and is the largest region in the country with a total area of 75,264, 74,752 sq. kms accounting for 8.6% of Tanzania Mainland's land area (URT, 2004).

Physical features

Tabora is generally a plateau with a series of mountains that rise gradually from 830 to 2000 meters above the mean sea level. The region is partly covered by bushes, Miombo woodlands and forests especially in Sikonge and Uyui districts. Most of the hill ranges, steep slopes, and protected forest reserves are covered with large wood plants and forests which form good watershed protective covers. The amount of rainfall ranges between 659 in the northern part of the region (Wembere river basin) to 1,100mm at the western parts of the region on the shores of Lake Sagara (URT, 2004).

Population

According to the 2002 population and Housing Census, Tabora Region had 1,710,465 people - accounting for 841,769 males and 868,696 females (URT, 2004). The dominant indigenous people of the Region are Nyamwezi, and Sukuma people. Significant minority ethnic groups include the Ha people especially in Urambo District and the Nyiramba people in Igunga District. In recent years the Burundi Refugees have added variety to this Region's ethnic make-up especially in areas of Ulyankulu.

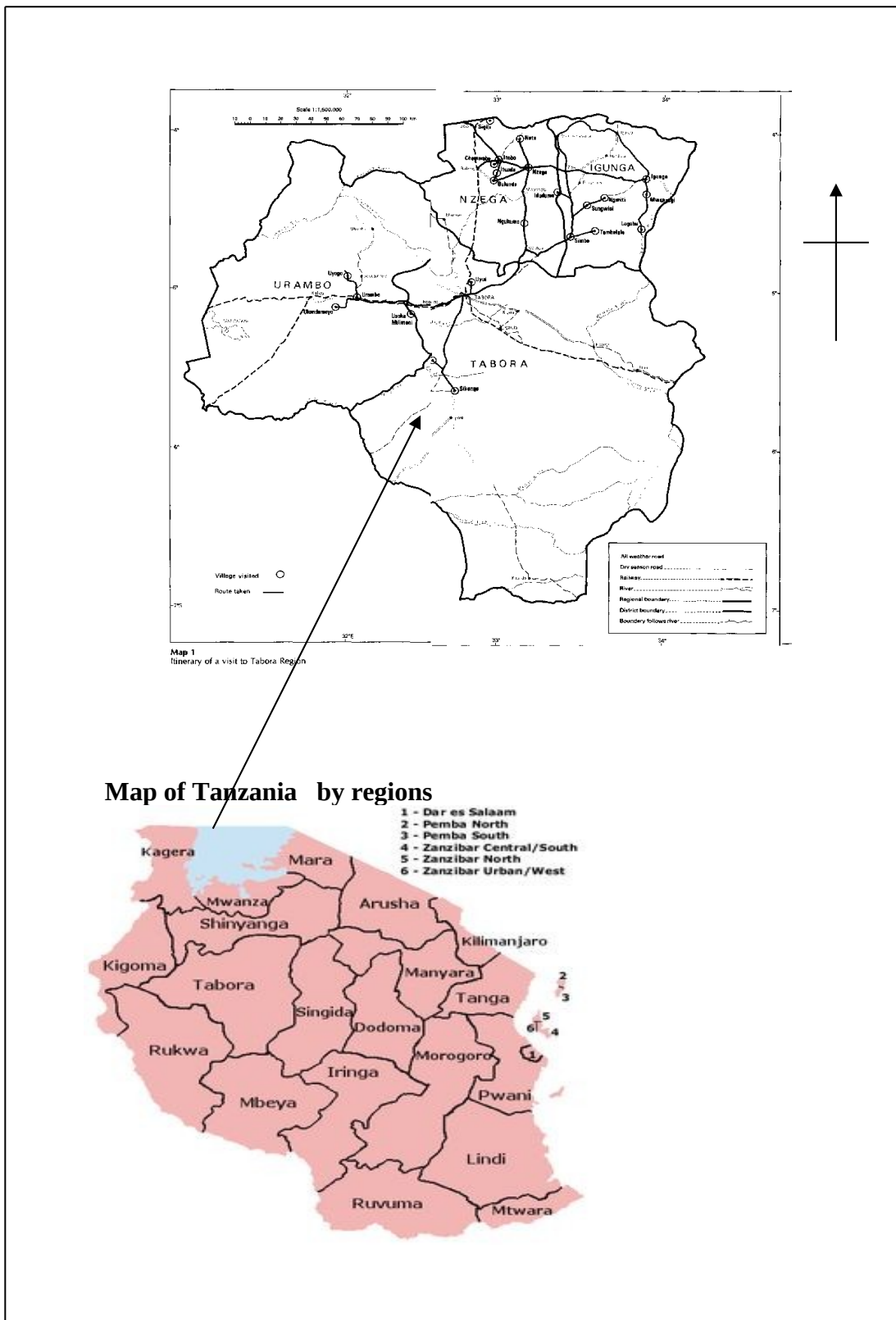


Figure 3: Map of Tabora region – Administrative area.

Economy

Tabora is among the least developed regions in the country. Agriculture (crop production and animal husbandry) is the largest single sector in the economy of the region like other regions in the country. Agricultural sector in the region employs 90 percent of the adult population. Staples grown are mainly maize, cassava, millet and sorghum. Other crops include groundnuts, sunflower, sweet potatoes, paddy and tobacco. Animals reared are cattle, goats, sheep and poultry. Commercial activities are mainly done in urban areas and rural trading centers. Also people of Tabora region engage in other activities like bee-keeping, lumbering, fishing, and mining. The region has a few small- scale industries and most of which are located in urban centres (URT, 2004).

Social services

In most parts of Tabora region social services are inadequate. In average a person need to walk about two to ten kilometers in order to get a service like dispensary or a hospital , school, water, market and the like (URT, 2004). Thus accessibility to basic social services is still a problem to most of people in the region. The region has 673 primary schools that enroll only 54.3 percent of children eligible to go to school (URT, 2004). Most of these schools lack basic facilities such as classrooms, school furniture, teaching-learning materials as well as teachers. Such factors adversely affect students' educational achievement leading to poor examination performance in the region.

3.2 Research Design

The cross-sectional research design was used in this study. The cross-sectional research design allows data to be collected on different groups of respondents at one point at a time (Bailey, 1987; Babbie, 1990). Moreover, cross-sectional research design is so useful in

descriptive study for determination of relationships among variables and is considered to be favorable because of resource limitations and time for data collection. Thus, the adoption of the cross sectional research design in this study is justifiable on the basis that, it allows the most common designs used in many survey research to compare extent to which at least two groups of people differ on a dependent variable (de Vaus, 1993). Taking the assertion of comparing two groups, high and low performers in examinations where put into focus. Thus performance was taken as an established line among primary school students in Tabora region.

3.3 Sampling Procedure

3.3.1 Selection of the sample district

Selection of the sample district in Tabora region was purposive. This was due to the fact that Tabora municipality is the places where people of varied income can be easily obtained compared to the rest (other) districts in the region. This could therefore reflect the purpose of the study that focuses on the influence of parents' income on the school performance.

3.3.2 Selection of sample pupils, teachers and parents

Prior to selection of pupils, teachers and parents, it was necessary to define pupils' performance. The definition of performance was obtained by interviewing key informants who had adequate knowledge about school matters. Key informants included school teachers, education officers, school pupils and parents who were aware of school related matters. Discussion with key informants revealed that if a pupil scores 61% and above in his/her is defined as good performance while its opposite could mean failure. However, factors influencing pupil's performance were identified.

3.3.4 Sample size

The sampling unit for this study was a house hold where selected respondents were obtained for interview though students and their teachers were found in the school. The sampling frame/sample size was obtained by using purposive and stratified sampling techniques.

As a part of sampling frame, 63 students were randomly selected from standard four to standard seven. This was done through the use of simple random sampling technique, whereby the researcher drawn a list of respondents from the attendance registers and examination result sheets in class. The researcher stratified them according to their classes and performance. Among the selected 63 students, 32 were low performers while 31 were high performers. This was done to avoid biasness and to ensure that all classes were equally represented in the sample. Students were selected and involved in the sample for the reasons that they were the central focus of this study. As such, they were expected to know more than anybody else about the factors which influenced their performance.

Second category of respondents was made up of 12 teachers who were randomly selected among others within the school community (ie Mihayo primary school). This was done through simple random sampling techniques such that any teacher in the very school has an equal chance to be included in the sample. Teachers were involved in the sample because they were the ones who coordinated the teaching- learning program in the school.

These were expected to reveal information on resources used, learner's abilities, student's attitudes and the problems faced by students in their course of learning and general performance as well.

Third category of respondents comprised 38 parents whose children have been already selected/ involved in a sample. This means that all children, here termed as students who got chance to be involved in the Sample were stratified according to their respective parents (i.e. stratified sampling technique) and then parents were randomly selected (i.e. simple random sampling technique). In the process the researcher got the list of students respondents and stratified it into two strata of high and low performers in their academics. This was done purposely in order to ensure fair or equal representation of all groups in the sample.

Parents whose children were involved in the Sample were included (parents) because they had a parental and or guardian role to their children in their studies. They were the ones who were expected to take care of their children and supply them with necessary school learning materials and other things related to school. They are the ones who give their children moral support and encouragement so that they could perform well in their studies. Parents were further stratified in terms of income levels determined in monthly mean income per household. The major aim was to test the relationship between parents' income level and student's performance in school.

Thus the size of the sample (sample frame) in this study comprised a total number of 120 respondents. The sample size of 120 concurs with any scientific research for getting accurate results. According to Bailey (1994), a sub-sample of 30 % respondents is the bare minimum for studies in which statistical data analysis can be done.

3.3.3 Data collection

Both primary and secondary data were collected for the study. Institutions concerned like school and education offices were visited in order to collect primary data. Primary data collection involved visitation of the sampled school and parents. The first visit was a preliminary survey in which discussion with teachers, education officers and education experts were held in order to have a clear picture about the information of the study. Definition for performance and income were developed. Pre-testing of questionnaire to respondents was done at this stage. The questionnaire and interview schedule were formulated in English but translated and conducted in Kiswahili, which is the national language.

3.3.4 Sources of data

Sources of data were both primary and secondary one. Primary data were quantitative ones gathered from the field by using questionnaires while qualitative data were being collected by direct observation and face-to-face interviews. Secondary data were from existing information/literature, published and unpublished reports. This included different reports from Morogoro regional education office, REPOA, research reports from various institutions, such as Sokoine National Agricultural Library (SNAL) and non-governmental organizations dealing with education.

3.3.5 Reliability and validity of methods

To test validity and reliability of methods for data collection, pre-testing of the questionnaire was done before actual collection to determine their clarity and relevance to the objective of the study. Pilot testing was done two weeks before the actual research. This

was done purposely in order to control the quality of questionnaire and the information obtained through them.

The pilot study was done in order to observe the following:

- To test data collection instruments and to see if tools allow the collection of required data, hence to identify some potential problems if any.
- To check the availability of study population and the reaction of the respondents to the posed inquiries.
- To test the procedures of data collection, processing and analysis and see if at all these findings bring sense. Questionnaires for pilot study were administered to twenty respondents drawn from the school that was in the survey program prior to the commencement of the study. Those respondents had similar characteristics as the respondents included in the main survey. The questionnaires were modified to incorporate lessons drawn from the pilot survey.

3.4 Data Analysis

3.4.1 Descriptive statistics

Under descriptive statistics, means, percentages, and frequency distribution of different variables were calculated. Results from descriptive statistics were used to construct frequency distribution tables important to simplify interpretation of results. Quantitative data were sorted, coded and analyzed descriptively using the Statistical Package for Social Sciences (SPSS) version 12.0.

3.4.2 Empirical Model (logit regression model)

Binary logit model was used to determine the influence of parents' income on the performance of a pupil. The logit model shows the probability of an event stated in the three trials; on average, the event to occur and the failure not to occur (Mendenhall, 1989). That means for dependent variable Y_1 can be only one or zero and continuous variable X_1 .

The probability of distributions was therefore calculated for different categories of pupils from different families in terms of income to determine their probability of academic performance under different levels of variables influencing their performance in academics. The categories of pupils and parents were determined by education level (parents), age, sex, geographical location, wealth status and size of the family. Binary Logit model is expressed as follows:

$$Y_i = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + \dots + b_i X_i + \mu_1$$

Where:

Y_i = dependent variable that stands for '1' if one passes and '0' otherwise

b_0 = Column vector, a term showing interception of factors influencing performance

$b_1 - b_i$ = Coefficient or parameters for the independent variables

μ_1 = Error term.

- X_1 = Independent factor showing income of parents in average monthly earnings
- X_2 = Independent factor showing distance from home to school, in kilometers
- X_3 = Independent factor showing parents' time management for their children, in hours
- X_4 = Independent factor showing learning materials availability in terms

- of numbers
- X_5 = Independent factor showing school attendance in terms of number of days and hours spent in school
- X_6 = Independent factor showing home learning factors like study time in hours
- X_7 = Independent factor showing student's self studies, in terms of hours utilized
- X_8 = Independent factor showing student attending tuition in terms of number of hours or days per week or month
- X_9 = Independent factor showing child labour, in terms of hours a child engages in employed works instead of studying
- X_{10} = Independent factor showing parent's education determined by years a parent spent while schooling
- X_{11} = Independent factor showing student's health measured by number of days a student is not sick
- X_{12} = Independent factor showing student's peer groups measured in terms of numbers and their behaviours towards schooling
- X_{13} = Independent factor showing student's attitude towards / education measured in terms of hours a student personally engages with studies without anybody's influence

Hypotheses tested were; $H_0: b = 0$ $H_a: b \neq 0$

- a) Chi-square test the level of statistical significance was 0.05 and where significant, the comparison was done at lower levels (0.01 and 0.001).

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Overview

This chapter presents the results and discussion on assessment of factors affecting students' performance in primary school. The first part of this chapter briefly identifies characteristics of the respondents in terms of sex and age. The second part of the chapter section identifies the factors that affect students' performance. The third part of this chapter shows the logistic regression results. The fourth part of the chapter shows the operational uses of logistic model in this study. The final part of this chapter summarizes the major findings of this study.

4.2 Background Characteristics of Respondent

The background characteristics of the respondents are presented in Table 3. The parameters for demographic characteristics include sex, age, and marital status while socio-economic variables include level of education, income and location.

4.2.1 Sex

The study comprised 63 standard seven primary school pupils both males and females, 9 teachers of which (20%) were males and (80%) being females at Mihayo primary school, Tabora region (Table 2). The study comprised standard seven primary pupils both males and females because both were the target group. Teachers (both males and females) were included because they are the most education stakeholders. Parents of the sampled students (both sex) were also important to supplement some basic data needed in this study.

4.2.2 Age

Age is among the pupils, teachers and parent's characteristic that is often examined in performance studies as it affects performance in many ways. Since all pupils and teachers had equal chances of participating in this study therefore, no age group had special treatment. The minimum age was 13 years and the maximum age was 19 years for pupils while for teachers it was 21 and 55 respectively while the age of parents ranged between 33 and 60. The majority (52.0%) of pupil's respondents had ages ranging between 14 and 16 years (Table 2). Slightly less than one half (47%) of all teachers (respondents) were between 30 and 42 years old while parents that responded (80.0%) were between 35 and 50 years old (Table 3).

Table 3: Distribution of respondents (students) by background characteristics

Characteristics	Frequency	Percentage
Sex		
Female	23	36.5
Males	40	63.4
Total	63	100.0
Age (years)		
13 – 14	45	71.4
15 – 16	14	22.2
17+	04	0.6
Total	63	100.0

4.2.3 Parents' education level

During this study, information on education attainment by parents (both mothers and fathers) was considered so vital for every parent selected in a sample. Measures on parent's level of education were considered by counting number of years a parent spent while schooling. In order to get the average of education level of a household the years spent in school by both parents were divided by two. Thus, students indicated their parents'

educational level both for mothers and fathers separately. For example education of the father/ mother were rated as (0=no formal education, 1= primary education, 2= secondary education and college trainings, 3= diploma and university level).

Table 4 shows that majority (49.9%) of the parents are secondary school graduates while 23.6% were primary school leavers. 20.9% is post secondary graduates while the rest (5.2 percent) has no formal education. In order to get grade performance of each student, the performance relied on both internal and external examinations. However the rating of such performance used national standard four examinations. The performance of students was calculated in percentages such that a student who got an average below 61 out of 150 in his/ her continuous assessment was considered a failure according to the Education Policy (2004).

Table 4: Parents' level of education in numbers and percentages

Level of education	Father		Mother		Total percent
	Frequency	Percent	Frequency	Percent	
No formal. Education.	0	0	2	5.2	5.2
Primary education	05	13.1	04	10.5	23.6
Sec. education	08	21.0	11	28.9	49.9
Post. Sec. education.	06	15.7	02	5.2	20.9
Total	9	49.8	19	49.8	100.0

In order to make the connection between parents' education and the performance of their respective children Table 5 shows the correlations. The facts that are shown in Table 5 reveal parent's involvement in student homework. The involvement of parents in education of their children was measured by the number of times that a parent inspects the school work of his child. The involvement of parents was also determined by the extent at which

parents help their children in their school assignments and giving him/her some extra equivalent exercises per week at home. The parent's involvement in student homework appears to influence student success in their academic performance.

Table 5: Parents education, children's homework assistance and performance

Parent's time in School (Years)	Parents' assistance No. hours per week in (%)	Mean students' performance rate (%)
7	49	52.0
11	58	48.0
13	67	52.5
13 and above	71	62.0

With respect from the table (Table 5) parent's assistance of their children with homework is associated with their level of education. Thus, the more education level increases the more is the need to assist a child with school matters.

4.2.4 Parents' occupation

Among the backgrounds of students include occupation of parents (Table 6). During this study students in the study area were asked to indicate their parents' major occupations. The purpose was to determine the economic activities done by their parents and see if these influence in supporting academic performance among pupils. However, during this study Table 6 shows that the majority of parents (39.4%) were teachers while about 06% of respondent (parents) were working with medical department. The number of defence/army officers was 24.6% (including the retired ones); agriculturalists were 20.1% and the rest 5.9% included the group of those who deal with other activities apart the above mentioned from groups.

Table 6: Parents' occupation (in percentages) and students' performance

Parents' Occupation	Number of parents (%)	Students mean scores (%)
Teachers	64.0	64
Medical department	6.0	58
Defence/Army officers	24.6	53
Agriculturalists	20.1	59
Others	5.9	61

4.2.5 Location of respondents

Location or residence of a respondent in a local area could be considered as a proxy for reflecting the extent at which local areas influence an individual's behaviour including students (Raab, 1988). Location of respondents is so important because in urban areas people tend to live with respect to their income. For example, people who live in low density areas are likely to be high income earners, followed by medium density while the high density dwellers are low income earners. Thus the consideration of location comes into perspective because of two things. One, urban locations are highly related with income level of a household, and secondly, child behaviour is also contributed by effects of peers in local communities apart from those peers who are found in schools. All these have an effect towards learning and check the performance of a student.

Peers or attitudes of local people in given vicinity can stimulate or retard the spirit of academic popularity of a student (Farmranch, 2006). The most likely explanation is that peers or attitudes of local people tend to change student's attitudes and behaviours such that a student can act or react in a certain way. For example in peer group new members of the peer group can be influenced even to the point of rejecting to do assignments or listening to teachers in the classroom. If the group will be behaving in that way, there is higher possibility of students not to perform well in their studies than when the peer group is positive to learning.

The effect of local areas on student performance was measured by counting number of peers or elderly who either advice a student in education matters or advising him or her in other immoral related matters like theft, sexuality, drug abuse and the like. The result from this study showed that in the study area, the local influence was not significant to the performance of a student in academics.

Table 7: Influence of location of a student and school performance

Ward	No. Students in %	Hh-Mean income per month (Tshs)	**Locality effects	Mean students' scores (%)
Cheyo	15.9	500 000	-1.4	72
National	26.9	300 000	+ 4.0	72
Jeshini	23.8	400 000	- 1.08	53
Kariakoo	12.6	200 000	+ 2.39	59
Ng'ambo	7.9	100 000	- 4.29	42

Hh Refers to the abbreviation of households.

N.B: ** Refers to the calculated mean deviation of good vs bad advice from local residential areas and peers. A negative sign means bad influence whereas positive sign means good influence from localities towards learning.

4.2.6 Size of the household

The size of the household was considered as background variable of a respondent and it was investigated in order to underscore if it affects school performance of a student. Table 8 reveals that the size of the households in the studied area ranges between 4 and above 6. Although Carneiro (2007) comments that the size of a household can be a limiting factor for a student to perform well in academics but the finding in this study reveals that there is no any significant relationship between size of household and students performance. The size of the household as a parameter comes into consideration due to the nature of African culture of extended family while leading poor lifestyle.

Table 8: Size of the household and students' performance

Number of hh members	Number of hhs	Students mean scores (%)
1 to 3	-	-
4 to 6	14	68.0
More than 6	24	67.7
Total	38	

NB: household members excludes house servants

1-3= small household; 4-6=medium household; more than 6=big household

- Means no data were found during reporting.

4.2.7 Nature of household

Table 9 shows the relationship between nature of household and students performance. Nature of household is discussed in respect to the individual who heads a particular household. In this study the nature of household was determined by regarding who exactly heads the respective household. For instance, male headed households or female headed households. In most cases households that are headed by females are usually disadvantaged in terms of lack of most potential human resources. However most of women especially in African context are not so much experienced as family bread winners.

In Table 9 the findings show further that among the interviewees, 30 parents were heading their households whose average performance of their children was 64.07. It was also noted that only 08 female parents were heading their households and the average performance of their children was 63.89. This shows slight difference of academic performance among students between the male headed households and female headed households.

The intention of including the nature of household in this study was due to the onset of HIV and AIDS especially in Su-Saharan Africa. The fact is that some households are headed by females while others are only children living alone as orphans due to HIV and AIDS. This

follows the advancement of HIV and AIDS which has caused lots of deaths or any other cause leading to most of children left without parents. In the Sub-Saharan Africa, for example, the WHO (2004) reports that in 1999 alone, nearly 1 million children in that region lost their parents to AIDS including teachers. This has reached a point of even pulling out a good number of children out of school.

Generally this situation of having single parental care or missing both of them makes students not to perform well in their studies. Economically it indicates low availability of household labour such that children from such households tend to carry most of the burden of the whole household. The family responsibilities will definitely reduce the capability of student's school performance. This brings a very radical problem for any academic achievements.

Table 9: Nature of the household and students' performance

Household head	Number of households	Mean students performance in %
Male headed	30	64.07
Female headed	08	63.89
Total	38	

4.3 Determinants of Student's Performance

4.3.1 Income level of parents

In the study area parents were asked to indicate their major occupations from which the monthly income was estimated (Table 10). The major aim was to determine the extent at which income of a parent influence the pupil's performance in school. The fact is that parents' income serves as locus of information (King and Anne, 1993). Further more, the findings in Table 10 reveal that parents earning a mean of 500 000/- their children performs at a mean score of 72% in their studies. Parents who earn a monthly income of

300 000/- their students score an average of 78% and so on as it can be noted in Table 10. One should note that the income of the household commands the provision of household resources like learning materials for the school children, school uniforms and the like. Thus, under normal circumstances, families with better income tend to make home a good place to study. It may also mean that they can lead to the affordability of school requirements like stationeries and uniform as well as attending extra studies (tuition) for a school child (Table 10). Unlike to what was expected, results from the study showed that an income of parents has no significant relationship with the performance of a school child in the studied area.

Table 10: Influence of parents' income and students' school performance

Household mean income per month (Tshs)	Students mean scores in%
Parents earning 500 000	72
Parents earning 300 000	78
Parents earning 450 000	53
Parents earning 400 000	53
Parents earning 480 000	42

4.3.2 Student's attitude towards learning

Table 11 shows the reflection of student's attitude towards schoolings and academic performance. During the research teachers were asked to provide attendance class journals were the students' classroom attendance by subjects are recorded. Moreover, a library teacher provided a ledger which is used in borrowing books by students in order to check the number of times a student (sample) borrows books. However students were asked to indicate on a five point on Likert scale form of questions ranging from 'never' to 'always' regarding their attitude towards studies. The measurement regarded the number of times in hours a student borrow books from teachers/library, personal time spent on studies, and completion of his/ her given homework and how much does he/ she like schooling.

The study results summarized (Table 11) show that students with negative attitude towards schooling generally perform poor than their counterparts. They are the ones who never set personal timetable for studies, they don't borrow books from teachers, they value more time for playing than studying. The logistic results from this study (Table 17) show students attitude towards schooling has significant impact ($P < 0.078$) on his or her academic performance.

Marchago(1991) comments that an attitude of an individual is a set of perception or reference point that the subject has about himself in his or her activities. It is rather a perception that the individual assigns to himself and characteristics as well as attributes that he uses for descriptive assessment and total personality formation.

Table 11: Students attitude towards learning and academic performance

Indicators of student's attitude towards learning	Students mean performance (%)
Personal timetable, borrowing books & regular classroom attendance	79.8
No borrowing books, class dodger and too much playing	48.0
No worth schooling than doing business	46.2
Not necessarily to do home-works or classroom assignments	50.1
Marriage is worth than wasting time while schooling	45.4

4.3.3 Distance from home to school

During this study the distance from home to school was estimated in kilometers (Table 12). In the sampled school (Mihayo primary school), majority of the sample students (26.9%) live at National sub location, which is about 1 to 2km away from the school. About (23.8%) live at Jeshini sub- location, which is 2k from the school; while (15.9%) live at

Cheyo sub- location. Very few (12.6%) live at the sub-location of Kariakoo, which ranges between 2 to 3km from the school and only 7.9% (Table 7 and Table 12 respectively).

Table 12: Distance from home to school and students performance

Distance (km)	Missing of classes (%)	Mean performance of scores (%)
Traveling less than 1 km	03.0	75.0
Traveling 1 to 2 km	07.0	68.0
Traveling 2 to 3km	12.0	64.0
Traveling more than 3 km	14.0	61.0

In this research students were asked about the problem of traveling long distance from home to school. Students who travel/ walk more than 3 kilometers responded that they get a lot of inconveniencies on the way to school as well as on the way back home. However they also commented that in most cases they arrive at school while tired hence low concentration in their studies. The same applies when going back home. Students also complained that in most cases they tend to miss their lunch at home due to distance factor and therefore attend the afternoon lesson with empty stomachs. This obviously affects their concentration on studies and consequently their poor performance (Table 12).

Torto (2003), comments that the number of schools in most African countries has not kept pace with population growth and therefore students sometimes have to travel long distances before they get to school while late. Moreover, Oxaal (1997) stresses that student traveling long distances before arriving in school decreases their productivity since they arrive in school already tired and their participation and performance in any subject therefore is hampered.

Again it should be noted that there is a closer relationship between coming to school late and missing of classes. Coming to school while late makes pupils to avoid punishments by hiding. The continuation of this situation of hiding while avoiding punishment leads to poor performances in their studies. Table 17 shows logistic results of relationship between walking longer distance and school performance. The coefficient of traveling long distance from home to school was found slightly significant at $P < 0.075$ with positive sign as expected.

4.3.4 Effects of peers on student's performance

During this study peer influence were measured by counting the number of friends a student has and their involvement in education matters. This was helped by estimation of the time spent by a student with his or her friends on things which are not educational. The research findings showed that students befriended with school loving peers their performance were of the same with those befriended with non-school loving peers. Unlike to the expected results, the result findings showed that in Tabora region peer groups were found to have no significant effects on the academic performance of students in primary schools (Table 7). Gandara (2001) comments that, functioning within the context of school, home, and community, peer groups can affect the developmental trajectory of adolescents including school performance. Thus, there is relative importance of peer groups' influence on student's school performance.

4.3.5 Student's time management

During this study students were asked to show how much time they use in various activities every day (Table 13). The time utilized was computed at least to get the average time expenditure for a week regarding the type of activities utilized for. The results in Table 13

revealed that students who utilized their time fully for academic matters like classroom attendance, doing assignments/home works, self studies and the like were found to perform better than their counterparts who do not. Students who spend most of their time for playing, watching TVs, and doing other activities not related to academics tend to perform poorly in their studies. By average, students who misuse their study time were found scoring 44.4%. Thus, time management was noted to be significantly ($P < .044$) affecting the performance of a student in his or her studies in Tabora region (Table 17).

Table 13: Students time management and academic performance

Time utilization (hours) per week	Total working hours per week	Utilized hours per week	Student mean scores (%)
Listening to teachers in classroom	38	30	72.4
Private studies	10	9	69.8
Playing and charting with friends	7	8	48.0
Attending tuition	10	9	67.8
Watching TV at home	5	6	40.1
Domestic works not related to school	7	9	45.4
Doing home works / assignments	12	10	76.1
Traveling from home to school	5	6	59.0

4.3.6 Effects of tuition on student's performance

During this study the influence of tuition (private tutoring) on the performance of a student for both continuous and final examinations was examined. The aim was to find out the extent of influence of private tutoring (tuition) on education performance of a student. Among the 62 students who responded to the question of effects of tuition to school performance, 79.03% attend extra studies and 20.96% do not attend.

Table 13 shows that students' school performance has positive relationships with extra teaching (tuition). For example, students who attend extra studies tend to perform better (with average scores of 67.8%) than those who do not. Bray (1999) comments that private

tutoring or tuition tend to supplement class knowledge to a student who missed the regular classroom at school.

Table 17 shows that attending tuition has a significant ($P < 0.054$) influence on school performance of a student in Tabora region. Yet, it was noted that among the 79.03% students who attend tuition most of them their parents are secondary school leavers while the minority their parents are standard seven leavers. An assumed possibility is the education costs tend to be influenced by education level of parents. That means there is the possibility that education level of an individual determines one's occupation hence the prediction of household income.

4.3.7 Student's self-study and performance

During the research students were asked about time utilization for effective self-studies while at home and time at school. The time utilization was determined in terms of hours for each day (Table 13). It was noted that students who utilize their time effectively for self studies usually tend to perform better than those who do not. For instance that use most of their time for reading books, doing home works and or assignments while at school or at home perform better in their studies compared with their counterparts.

Table 13 shows that students who devote more time for self studies plus regular attending to classrooms were found to perform better at least with the mean scores of 69.8% while those who do not utilize their time effectively were found to have mean score of 4275%. The logistic results (Table 17) from research findings show that time used for individual student's self studies has significant ($P < 0.044$) influence on the performance of a student in Tabora region. Cook (1989) comments further that time management, including personal

timetabling, has a significant influence on ones goals accomplishments. The similar aspect is reflected to students in their school performance. This is because time controls every aspect in one's life.

4.3.8 Student's school attendance and performance

During this study students school attendance was obtained using school attendance register while in the classroom subject class journals were used. The aim was to relate the number of students who attend to school regularly and those who do not and then to relate their academic performance. It was noted that an average of five students miss their classes every day and that students who were found often missing their studies their performance were also generally poor (Table 14).

Boma (1980) comments that absenteeism of both teachers and students cause wastage learning time in classes and therefore affect schools performance negatively. During this research it was noted that the basic reason mentioned that affects school attendance was illness especially malaria and typhoid. A number of 10 students were often found missing their classes. These students were interviewed and their academic records were examined and it was found that their mean performance was generally poor compared with their counterparts that attend their classes regularly (Table 14).

As these students miss their classes frequently they are found lagging behind their fellows in most of subject topics and that they fail to cover and march together with them. Thus most of things which have been learnt in the class under their absence will obviously become strange and during the examination seasons they fail to answer them correctly. As it was anticipated from various literatures, results from this study showed that school and

specifically classroom attendance is significantly ($P < 0.009$) related to student's academic performance.

Table 14: Missing of school per week and student's performance

Average no. days missing school per week	Mean performance scores (%)
Don't miss any day per week	72
Missing 1 day per week	67
Missing 2 days per week	58
Missing more than three days per week	38

4.3.9 School learning materials supply and performance

One of the factors influencing student's school performance is the availability of learning materials. During this study school learning materials for individual student were counted and assessed in order to find out the extent at which parents fulfill their supply to their school children. School material supply included school fees, books (text and reference), school uniforms, pens, rubber, ruler, pencils and school bag (Table 15).

It was noted that not all parents fulfilled all school requirement of their children though some managed it. In Tabora region, those students whose parents supplied them with all school learning materials they were noted to perform fairly better (79.2% average scores), (Table 15) than their counterparts who did not. Bagachwa (1994), comments that education accessibility is a factor for students' performance. According to him, education accessibility is defined as availability of physical facilities (sheer existence of study materials, sufficient number of classrooms, and adequate number of teachers). Education accessibility therefore includes financial accessibility and the possibility that parents send

their children to school and satisfy them with, whenever possible, all school learning materials.

Moreover the frequent changing of curriculum was mentioned to be a contributing factor for shortage of learning materials especially books that are supplied by students' parents. Whenever there is lack to access text and or reference books due to frequent changing of curriculum learning become rather difficult such that learning by dictation, rotting, notes copying, and or lecturing type of teaching, dominates the classes and finally leading to students' poor performance. The research results revealed that there is a slight significant relationship ($P < 0.08$) between education material supply to a student and his/her academic performance.

Table 15: Students material supply and school performance

School materials supply	Parents school material fulfillments (%)	Students' mean score in %
Uniform, books & fees	42.85	62.6
Uniform, books, fees & pencils	57.14	67.5
Uniform, books, fees, pencil & rubber	71.42	71.8
Uniform, books, fees, pencil, rubber & school bag	85.71	74.4
Uniform, books, fees, pencil, rubber, school bag & extra money for tuition	100.00	79.2

4.3.10 Nutrition and student's performance

Table 16 shows the balanced diet intake per week and students average scores. During this study students were asked the number of days they eat balanced diet at home. The days were calculated per week in order to relate the performance of students and eating of

balanced diet. In Table 16 it is shown that (30%) of the students take balanced diet at least once a week. About 20% of all students tend to take balanced diet at least twice per week and 03 per cent take balanced diet at least thrice per week while 47 % never take it per week. The results show that there is no any significant relationship between taking balanced diet and school performance in Tabora region.

Table 16: Balanced diet intake per week and students average scores

Number of times per week	No. student (%)	Average scores in school (%)
At least once per week	30.0	73.7
At least twice per week	20.0	75.1
At least thrice per week	3.0	69.8
Not even once per week	47.0	71.2

4.3.11 Health related factors

Health-related factors such as hunger, physical and emotional abuse, and chronic illness can lead to poor school performance (Dunkle, 1991). Health-risk behaviors such as substance use, violence, and physical inactivity are consistently linked to academic failure, and often affect students' school attendance, grades, test scores, and ability to pay attention in class. In this research health related factors were highly considered because they are excellent indicator for the overall well-being of youth and a primary predictor and determinant of students to attend to school.

Health factors were determined by asking students to mention number of days a student miss his or her classes due to illness. The days were calculated and found that at least an average of two students miss their classes due to illness. The major diseases identified were malaria and typhoid. Because of such condition of illness such that students miss

their classes leads them to lag behind their fellows in classrooms and eventually performs poorly (Table 13). Dunkle (1991) once commented that total health of an individual has impacts on educational outcomes, as well as on health risk behaviors and health outcomes. Despite the various commentaries on the importance of health to man in relation to his work productivity, in Tabora region health related factors was not found significantly affecting student performance in their studies.

4.4 Logistic Regression Results

Results on regression analysis are shown in Table 17. Results show that the model was significant as indicated by the significance of F-value ($P < 0.01$). Moreover, adjusted R^2 indicates that the model explained about the variation in odd ratios. The high R^2 suggests that the model fitted well the data. However, it is important to note that this is the re-estimated probabilistic model by using maximum likelihood estimation using transformed variables as suggested in equation of logit model.

Table 17: Results of Logit regression analysis of the variables

Independent Variables, X_i	Y_i		$R^2 = 0.667$
	B	Beta	Sig - z
Parent income	-.086	0.918	.859
Parent education Level	.027	1.027	.923
Traveling longer distances	.661	0.516	.075
Time management (Student's self-study)	.774	3.061	.044
School attendance	2.124	0.1201	.009
Learning materials (supply) availability	.774	0.120.	.089
Student's attitude towards learning	.812	0.461	.078
Attending shadow teaching (tuition)	.775	3.071	.054

X_i = Independent variables

Y_i = Gross point average (dependent variables)

R^2 = Coefficient of determination

** = significant at $P < 0.01$

The results shown (Table 12 and 17) indicate that traveling longer distance from home to school had significant relationship with the performance of a student in his or her academics. As students arrive at school are either exhausted or late such that he may even miss his studies that consequently results into poor performance.

Student's time management as expected showed significant relationship with student's performance. Time management includes student's self study, person planning of his programs including learning, total time utilized in learning and the like.

School attendance of a student showed strong significant relationship with academic performance as expected. Students who attend the classes regularly tend to perform better than their counterparts who do not. This is because they never miss any lesson being conducted in the class and they always catch up with their teachers.

The availability of learning materials both at home and school showed significant relationship with the performance of a student. This is because the supply of learning materials to students will enable them to be systematic, and get academic assistance even at home.

Student's attitude plays an important role in the student's performance. As it was expected, student's attitude showed significant relationship with school performance of a student as results from the table (Table 11 and 17) indicate. Student's attitude towards a certain task will make him to have a determination in order to his or her goal commonly known as goal achievement (good performance).

Attending extra studies after school hours, commonly known as tuition plays an important role in academic performance of a student. Shadow teaching or tuition, as it is known as expected showed significant relationship with the performance of students in their academics. This is because tuition supplements some parts where a student didn't understand in normal classes. However it quickens the coverage of syllabi and curriculum at large.

4.4.1 Operational uses of logit model in this study

Logistic regression can be used to predict a dependent variable on the basis of continuous and/or categorical independents and to determine the percent of variance in the dependent variable explained by the independents; to rank the relative importance of independents; to assess interaction effects; and to understand the impact of covariate control variables. The impact of predictor variables is usually explained in terms of odds ratios (Allan, 1999).

In this analysis, the outcome of the response: pass or failure does not matter. The major interest is the likelihood or probability of the outcome. The binary response in this study is whether the respondent has passed or otherwise. Thus because of its effectiveness in assessing performance the study used the model (logit model) in analyzing the data during the research.

The probability of distributions was therefore calculated for different categories of pupils from different families in terms of income to determine their probability of academic performance under different levels of variables influencing their performance in academics. The categories of pupils and parents were determined by education level (parents), age,

wealth status and size of the family. Pupils were determined by sex, nature of their family, and distance they travel from home to school.

Other variables like quantity and quality of teachers, population size of the classroom and availability of learning materials were also examined to give their impact on the performance of pupils in Tabora region. All statistical tests were conducted using t, F, Z, Chi-square, Pearson correlation evaluated at $p < 0.001$, 0.01 or 0.05 levels of significance.

4.5 Summary of Major Findings

The study aimed at determining the factors that affect student's performance in primary school in Tabora region. These were school environment, home environment and other socio- cultural factors. A number of factors affecting student's performance were examined and their relation with the performance of an individual student was established.

The study reveals that student's performance is affected by a numbers of factors. Such factors include availability of reference books in schools as well as at home that doesn't meet the needs of a student. Student's attitudes towards education influence of peer groups; distance from home to school and pupils absenteeism in classes were also accounted to influence student's school performance. The study showed further that in the studied primary school, considerable and varied amount of time is not so much wasted without academic work. However, few serious pupils from well to do families opt for tuition after school hours or during weekends.

Other factors identified in the study include, the level of education attained by their parents, which was not significantly associated performance of the children. Although

parent's education had a strong influence on their children's education it didn't guarantee their better performance. Educated parents help their children with their school-work especially during the early years. Parent's occupation, and income do not significantly affected students.

Large households and nature of households, nutrition and health factors are complex in showing relationship with the performance of a student. Lateness in class and skipping of classes due to traveling longer distances, (especially for those who don't have means of transport) hinder the mastery of learning programs leading to poor performance in their academics.

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATIONS

The main objective of the study was to show the relationship between parent's income and pupil's performance in primary schools. The central idea was to investigate the level at which parent's income influence performance of a pupil when compared with other factors. To understand these factors will assist different education stakeholders to rectify the daily trend of poor performance across the country and beyond. The previous chapters presented this information in detail. Thus, this chapter presents conclusion of the study and makes recommendations for further actions to be considered when dealing with education sphere as far as those education issues have been put forward in this research findings.

Results from this study portrays that the question of poor performance in primary schools is an interplay of number of variable. For sure it is a function of several attributes that, however, operates at different levels and mostly they are also highly related. The results from the study show that pupils traveling longer distances from home to school are affected in academics compared to their fellow counterparts who travel shorter distances from home to school. Underlying reasons are due to lack of means of transport hence arriving to school either late, tired or both such that they get affected during their academic concentration.

Other notable causes apart from the above mentioned which significantly affect the performance of pupils include attitude of an individual student towards learning, and the influence of peer groups. Peer groups can either retard the performance of a student or catalyses it depending on the ambition of the very group. Peers both at school and home environment were found to be significant in affecting student's school performance.

Apart from the above, other factors affecting student's performance were noted to be supply of learning materials, time utilization by students and parents. Time utilization includes, regular school attendance, student's self-study and attending of tuition.

5.1 Recommendations

The study recommends on the introduction of various programmes that could improve education to people of all socioeconomic levels according to the Millennium Development Goal (MDG) as advocated in the Dakar forum. However the emphasize from the Education Training Policy (ETP) that stresses on the importance of primary school education to all children with school going age.

Let the curriculum developers, administrators, and all stakeholders including students and teachers as well as parents unite their forces in order to improve the education performance that will justify the improved quality of education. Having well trained students will enable us to have highly qualified trained personnel in various sectors for the development of country and globe level at large. Education policy therefore should re-emphasize on how the overall education quality should be addressed. Programs established like PADEP should go beyond what have been achieved. Yet, let various NGOs and CBOs as well as other organizations as they participate in other development activities, the first priority should be given to primary school education because it is the one that gives the basis of all other levels of education.

5.2 Limitations of the Research

The findings presented in this study are the result of a study conducted in Tabora Municipality. During the study it was highly faced by two major limitations. The first one

is financial constraints as far as it was privately sponsored. The second serious problem was time factor such that the study therefore didn't cover the whole of Tabora region at least to make it a real representative of the total population of Tanzania due to the size of the sample. In this case there is a need for more studies on the subject for the whole region of Tabora and other parts of the country experiencing similar problems in order to enable the generalization of observations.

REFERENCES

- Allan, A. (1996). *An Introduction to Categorical Data Analysis: An excellent accessible introduction*. John Wiley Press, New York.37– 40pp.
- Alderman, H. (1996). The Income Gap in Cognitive Skills in Rural Pakistan. *Journal of Economic Development and Cultural Change*1: 97 – 122.
- Anderson, L.W and Robert, B. (1989). *Research in Classrooms: The study of teachers, teaching and instruction*. Pergamon Press, London.51 – 53pp.
- Atkinson, J. W. (1964). *Introduction to Motivation*. Van Nostrand Press. Princeton 319 pp.
- Bailey, K. D. (1989). *Methods of Social Research*, 4th Ed. The Free Maxwell Macmillan, Inc., Toronto.588pp.
- Bedi, A. S. and Marshal, J. H. (1997). School Attendance and Students' Achievement. *Journal of Economic Development and Cultural Change* 47(3):657 – 682.
- Bernard, H. R. (1994). *Research Methods in Anthropology*. Sage Publishers, California. 584pp.
- Blum, R .E . (1990). *Effective Schooling Practices: A research synthesis*. Northwest Regional Education Press, Oregon. 23 - 26pp.

- Boma, A. E. (1980). *Factors Affecting Performance in Tanzania Schools*. Dar es Salaam University Press, Dar es Salaam.33 – 57pp.
- Cameron, J. and Dodd, W.H. (1970). *Schools, Society and Progress in Tanzania*. Pergamon Press, London. 304pp.
- Coleman, J. S. (2002). Accelerating the Education of Girls and Women in Sub- Saharan Africa: A development imperative. [[http:// repositories.cdlib.org/ cgi / view content. Cgi? Article = 1004 & context = international / asc](http://repositories.cdlib.org/cgi/viewcontent.cgi?Article=1004&context=international/asc)] site visited on 14/ 07/ 2007.
- Chonjo, P and Welford, G. (2001). *Reasons for poor performance of A- level sciences examination in Tanzania*. Dar es Salaam University Press, Dar es Salaam.39 – 49pp.
- De -Vaus, L. (1983). *Surveys in Social Research*. Second Edition. UCL Press, California. 379pp.
- ETP (1996). *Ministry of Education and Culture*. Government Printers, Dar es Salaam. 37pp.
- Ganon, M.J.(1979).*Organizational Behaviour: A managerial and organizational perspective*. Little Brown Publishers,New York.235pp.
- Gujarat, D. (2003). *Basic Econometrics*. 4th Edition. McGraw Hill Higher Education Publishers, New York.67pp.

- Hideo, P. and Psacharopoulos, P. (1993). The Trade-Off between Child Labour and Human Capital Formation: A Tanzanian Case. *Journal of Development Studies* 15(5):121–140.
- Hosmer, D. and Stanley, L. (1989, 2000). *Applied Logistic Regression*. 2nd ed. Wiley and Sons Publishers, New York.312pp.
- ILO (2004). International Programme on the Elimination of Child Labour (IPEC)/Time Bound Programme for the Elimination of Worst Forms of Child Labour. http://www.ilo.org/public/english/region/afpro/daressalaam/document/tbp_veta_programme.rtf.] Site visited on 03/02/2008.
- King, E. M. and Anne, H. M. (1993). *Women's Education in Developing Countries, Barriers, Benefits and Policies*. The John Hopkins University Press, London. 337pp.
- Locke, E. (1976). *The Nature and Causes of Job Satisfaction: Handbook of organizational psychology*. McNally Publishers, Chicago.1297–1300pp.
- Maglad, N. (1993). School supply, Family Background, Gender-Specific, Enrolment and Attainment. *East Africa Social Science Research Review* 2:1–11.
- Malila, M.N. (2003). *Time Resource Management and Secondary School Student's Performance in Tanzania*. Dar es Salaam University Press.117 pp.

Maslow, A.H. (1970). *Motivation and Personality*. 2nd Ed. Harper and Row Publishers, Inc., New York. 370pp.

McDonald, J.M. (1967). *Education in the New Catholic Encyclopedia*. Catholic University Press, Washington. 1049pp.

Ministry of Education and Culture (2001). *Basic Statistics in Education*. Government Printers, Dar Es Salaam. 54pp.

Mtavangu, A. (2006). *Free Primary Education in Tanzania*. University of Stockholm. [<http://portal.unesco.org/education/en/download/f2055ele3843e56bddf020ab7fe49ed1The+introduction+of+free+primary+education+in+subsaharan+Africa.doc>] Site visited on 12/01/2008

O'Connell, A. A. (2005). *Logistic regression models for ordinal response variables*. Sage Publishers, California. 456– 458pp.

Osaki, M.K. (2004). *Tanzania: Reflections on the secondary education analysis and development programme*. [http://worldbank.org/afr/eia/conf_0604/presentation_Osaki.pdf.] Site visited on 18/7/2007.

Oxaal, Zoë. (1997). *Education and poverty: A gender analysis*. [<http://www.bridge.ids.ac.uk/reports/r53eduw2.doc>] site visited on 10/04/2007.

Oxford Policy Management (2001). *Tanzania education sector public expenditure review*.

Oxford University Press, London. 120 pp.

Powers D.A and Xie Y. (2000). *Statistical Methods for Categorical Data analysis*.

Academic Press 24 – 28, London.123pp.

Pritchard, R.(1977).Effects of Extrinsic Financial Rewards on Intrinsic Motivation. *Journal of Applied Psychology* 62 (1): 56 – 62.

Programme for the Elimination of Worst Forms of Child Labour. [http://www.ilo.org/public/english/region/afpro/daressalaam/document/tbp_veta_programme.rtf.] Site visited on 02/04/2008.

Richard, L .(1989). *Teacher and Supervisor Assessment of Principle leadership and Academic Achievement*. Swets and Zeitlinger Pulishers, Amsterdam. 78pp.

Richards, W.M .(1994). A statistical model for the analysis of ordinal level dependent variables. *Journal of Mathematical Sociology* (4):103– 120

Robbins, S. P. (1991). *Organisational Behaviuor, Concepts, Controversies and Application*. 5th Edition, Prentice- Hell Publishing Press, New Jersey 07632. 719 pp.

Schulz, T. P. (1990). Testing the Neo- Classical Model of Family Labour Supply Fertility. *Journal of Human Resources* 21(4):599 – 634.

- Tadese, E. (1997). Anthropogenic Determinants of Success in Agricultural Education. The Case of Jimma College of Agriculture, Ethiopia. *East Africa Social Science Research Review* 1:1 – 18
- Tansel, A. (1997). Schooling Attainment, Parental Education and Gender in Cote d'Ivoire and Ghana. *Journal of Economic Development and Cultural Change* 4:825 – 856.
- Taylor, P. and Mulhall, A. (2001). Linking learning environments through agricultural experience—enhancing the learning process in rural primary schools. *International Journal of Educational Development* 21(6): 136– 140.
- Torto, R. (2006). *Extracurricular and out of School Factors Affecting Girls' Participation and Performance in SMT Subjects*. [<http://www.unesco.org/education/educprog/ste/projects/girls%20africa/femsa/femsa5.html>] site visited on 12/03/2008.
- Tripp, S. (1989). Education and Poverty. SCO Regional Practice and Perspectives from the Asia Pacific. *Journal of Adult Education Development*.1: 41– 54.
- UNICEF (2003). *The State of World Children*; New York, 152pp.
- United Nations Statistics Division (2006). *Millennium Development Goal Indicators Database*. [Online] New York: United Nations Statistics Division. Available from: http://unstats.un.org/unsd/mi/mi_goals.asp. Site visited on 14/2/2008.

URT (2004). Tanzania Economic and Human Development Report. Mkuki na Nyota Publishers, Dar Es Salaam. 138pp.

UNICEF (2004). *The State of World Children. Division of Communication.* 3 United Nation Plaza Publishing House, New York. 59pp.

URT (1995). *Education and Training Policy.* Government Printer, Dar es Salaam. 96pp.

URT (2001). International/ Millennium Declaration Development Goals Progress. Dar es Salaam University Press, Dar es Salaam. 43pp.

URT and UNICEF (2001). *Situation Analysis of Children in Tanzania.* Mkuki na Nyota Publishers, Dar es Salaam. 130pp.

URT and EU (2003). *Joint Annual Report on Tanzania.* [http://www.europa.eu.int/comm./development/body/csp_reviews/2004/TZ-final_2004.pdf] site visited on 16/09/2008.

URT (2005). *Basic Statistics Education in Tanzania. Ministry of Education and Culture.* Government Printer, Dar es Salaam. 108pp.

URT (2005). *The Economic Survey. The Ministry of Planning, Economy and Empowerment.* Government Printer, Dar es Salaam. 56pp.

URT (2005). *National Strategy for Growth and Reduction of Poverty (NSGRP)*. Vice President's Office. Government Printer, Dar es Salaam 71 pp.

URT (2007). *The Tanzania Economic Survey*. KIUTA Publishers, Dar es Salaam .206 pp.

William, N. and Zimalisana, M .(1991).Rapid Population Growth. *Journal of African Modern Studies* 1:141-161.

World Bank (1996). *Education Policies for Sub- Saharan Africa adjustment. Revitalization and Expansion*. [<http://en.wikipedia.org/wiki/Education>] site visited on 5/07/ 2007.

World Bank, (1999). *A World Bank Country Study: Tanzania social sector review*. Washington, D.C. [<http://en.wikipedia.org/wiki/Education>] site visited on 5/07/ 2007.

World Education Forum. (2000). *Education For All. Meeting Our Collective Commitments*. Dakar, Senegal 26 – 28 April. [<http://www.2.unesco.org/wef/en-leadup/meet>.] Site visited on 14/04/2007.

APPENDICES

Appendix 1: Results of Logit regression analysis of the variables

Independent Variables, Xi	Yi		R ² = 0.667
	B	Beta	Sig - z
Parent income	-.086	0.918	.859
Parent education Level	.027	1.027	.923
Traveling longer distances	.661	0.516	.075**
Time management (Student's self-study)	.774	3.061	.044**
School attendance	2.124	0.1201	.009**
Learning materials (supply) availability	.774	0.120.	.089**
Student's attitude towards learning	.812	0.461	.078**
Attending shadow teaching (tuition)	.775	3.071	.054**

Xi = Independent variables

Yi = Gross point average (dependent variables)

R² = Coefficient of determination**** = significant at P < 0.01**

Appendix 2: Sample questionnaire for pupils, teachers and parents

SOKOINE UNIVERSITY OF AGRICULTURE

DEVELOPMENT STUDIES INSTITUTE

QUESTIONNAIRE ON PARENTS' INCOME AND STUDENTS' PERFORMANCE

Questions have been formed to study o how parents' income affect the performance of students in their studies. This information is very important for scientific research and educational planning as well as policy making. As an interviewee you are very important in this survey because you present thousands 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

4. Sex: 1= Male 2= Female 5. Ageyears

6. How far is the school located from home?.....km

B. TIME MANAGEMENT

7. How often have you noted misuse of time in your school?

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

8. Do teachers spend most of subject located time to teach you?

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

9. How often do you make daily activities to be accomplished?

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

10. What is your general feeling about studies in primary school?

1=Very difficult 2= Difficult 3= Moderate 4= Easy 5= Very easy

11. How much time elapses without academic work while at school in a week?.....Hours.

12. In what extent do teachers spend most of the time located? (Tick appropriate spaces).

Subject	Teachers attendance (time utilization)			
	1=never	2=Seldom	3=Often	4=Sometimes
Civics				
English				
General knowledge				
Kiswahili				
Mathematics				
Science				
Others (specify)				

13. Do you arrange activities according to priorities set?

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

14. Do you set your time for self studies at least for a week or a day?

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

15. How often do the following events occur?

Occurrences of event	1	2	3	4
Entering the class after the morning assembly while late				
Subject's teacher absent				
Period cancelled without genuine reason				
Subject teacher enter the class late				
Subject teacher get out the class before the end of the period				
Period cancelled due to emergencies				
Doing punishment while fellow students learning in the class				
Others (Specify)				

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

16. How often are the assignments marked?

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

17. While at home how often do you locate your own assignment for studies?

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

18. (a) What is the education of your parents/guardian? Check only one.

Adult education (....)

Primary education (....)

Secondary education (....)

Tertiary education (.....)

(b) Do your parents give you some activities to do after school hours? 1= Yes 2= No

If **yes**, mention them.

19. (a) At what time do you normally go in bed?

1=Between 8:00 -9:00pm, 2=Between 9:01-10:00pm, 3=Between 10:01 and beyond.

(b) If you go in bed between 10:01 and beyond, what do you normally do? Mention

20.(a) Do you happen to attend extra teaching/ tuition studies?

1=Yes 2= No

(b) If Yes, how often?

1= Very rare 2= Sometimes 3=Always

(c) Who pays the tuition fees?

1= Father 2= Mother 3= Others (specify)

21. What do you desire to do after completing your primary school studies?

1=Go to secondary school 2= Get married 3= Engage in small enterprises

4=Others (Specify).....

22. Do your parents/ guardians buy you text/reference books?

1=Yes 2= No

23. Who helps you in doing your homework while at home among the following?

1= Father 2= Mother 3=Others (Specify)

24. (a) Does your parents/ guardians give you some pocket money?

1=Yes 2= No

(b) If **yes**, how often? 1= Very rare 2= Sometimes 3= Always

(c) What do you do with such money?

1=Buying food at school 2=Giving to boyfriend/girlfriend 3=Show-off to fellows 4=others (specify)

25.(a) To have a girlfriend / boyfriend is a normal thing now days, do you also have one?

1=Yes 2=No

(b) If **yes**, have you ever sexed with him/her? 1=Yes 2=No

(c) If **Yes**, (in 'b' above) how often?

1=Sometimes 2=Very 3=Always

26. To what extent do you like studying?

1=Very much 2= like 3=Neutral 4= Dislike 5=Dislike very much

27. How often do your friends advice you in matters pertaining to education?

1=Very often 2=Often 3=Don't advice 4= Advice otherwise

28. Do you agree that the following are the factors for that cause you not to do well in your examinations?

Reason for not performing good in academics	Scores		
	1	2	3
Not attending extra studies (tuition)			
Traveling long distance from home to school			
Missing classes in most cases			
More time attending domestic chores at home			
Lack of learning materials			

INSTRUCTIONAL TIME

29. How often do you come to school late from home?

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

30. You are supposed to be in school for studies for 294 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

31. 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.

32. What is the average number of absentees in the class per day? ----- Students.

33. Do teachers enter classes for teaching on time?

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

34. Are teachers helpful in using your time properly?

1= Not helpful 2 = Helpful 3 = Very helpful

35. How many hours do you keep yourself so busy in the class learning per week?_hours.

36.(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 of water from that source?

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

37. How difficult is it for you to get the following services in your school?

	1=Not difficult	2=Moderate	3=Very difficult
Books			
Subject teachers			
Library services			
Chairs/desks			
Newspapers/magazine			
Others (specify)			

38. Are there reference books in your school to facilitate your studies?

1=Never 2=Very few 3=Good number 4=Just enough

39. How often do you borrow books from subject teacher or library?

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

40. Give scores for the availability of the following learning materials in your school

Materials/scores	1	2	3	4	5
Textbooks					
Reference books					
Maps/atlasses					
Library					
Charts					
Chalkboard					
Others(specify)					

41. How do you feel about the performance of your friends?

1=Good, 2= Moderate 3=Bad

42. (a) Do subject teachers give you some exercises? 1=Yes 2= No

(b)If yes, how many times do you work on them with your friends?

1=Not at all 2=Very little 2=Very little 3=Sometimes 4=Very often 5=Always

43. To what extent is the end of the term and annual examinations difficult to attempt?

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

44. (a) Do you attend tuition studies after normal school hours? 1=Yes 2= No

(b) If yes, how often? 1=Very rare 2=Sometimes 3=Very often 4=Always

45. Who pays tuition fees for you? 1=Father 2= Mother 3=Others (specify)_____

46. In the last academic year how often did you fall sick?

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

47. Do you feel studying very frequently or very seldom?(circle one appropriate number)

Very seldom 1 2 3 4 5 Very frequent

48. 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 (<i>panga,Mundu</i>)		
Pair of oxen		
Hand hoe		
Ox-cart		
Sofa seat		
TV		
Refrigerator/freezer		
Others (specify)		

49. How often do you take balanced diet at home per week?

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

THANK YOU FOR YOUR CO OPERATION

Appendix 3: Questionnaire for teachers and parents

1. How many students in average enter the class late every morning in the first period?
1= 0, 2= 1-4, 3 = 5-8, 4 = 9-12, 5 = Over 12
2. (a) Do you have library in your school? 1= Yes 2=No
(b) If yes, how is its situation? 1=Not equipped at all 2=Ill equipped with very few and outdated books 3= Well equipped with modern books that fit the curriculum
(c) If **no**, where do you get your reference and text books?
1=We never get them 2=We hardly get them from teachers' home library
3=We get them from other sources (Specify) _____
3. In your school are there enough teachers to teach all subjects? 1=yes 2=No
4. 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
5. Which subjects are often not taught due to absence of teachers? Mention them

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

CRITERIA	SCORES				
	1	2	3	4	5
Buildings					
Classrooms					
Tables/desks					
Chairs					
Electricity					
Clean water					
Library service					
Laboratory					
Others (specify)					
Total					

7. How often do the school buildings facilitate smooth learning in your school?
1=Never 2= Very rare 3= Sometimes 4=Very often 5=Always
8. To what extent has the PEDP been successful in improving education in your school? (1)Very successful (2) Successful (3) Not successful

9. Please indicate number and value of assets owned by your family

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

10. (a) What type of resources/ materials is provided by the Ministry of Education and Vocational Training to your school? (Mention them)_____

(b).Where there any conditions for such materials provisions?

(1) Yes (2) No (3) I don't know

11. To what extent do you involve in the overall development of education programs in your village school?

(1) Highly involving (2) Involving (3) Sometimes involving (4) Not involving at all

12. What are the relationships between the school and village community?

(1) Very strong (2) Strong (3) No relationship at all

13. (a) Are you satisfied with your school performances?

(1) Yes (2) No

(b) If **No**, what do you normally do as an alternative?

(1) Conducting extra teaching/ tuition (2) Doing nothing

(c) If yes, do you think does it help for your school performance?

1=Yes 2= No 3=Somehow

14. How far is the distance from home to school? (1) between 0-1 km (2) between 1-2 km (3) beyond 2km

15. What is your main source of income per month? Mention.
16. What is your mean monthly income? Mention.

THANK YOU FOR YOUR CO OPERATION