

**DETERMINANTS OF POOR ACADEMIC PERFORMANCE OF SECONDARY
SCHOOL STUDENTS IN SUMBAWANGA DISTRICT, TANZANIA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
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ABSTRACT

This study was undertaken to assess factors that influence the academic performance of students of selected secondary schools in Sumbawanga District, Tanzania. Purposive sampling was used to select the District, Heads of schools and District Secondary Educational officers. Systematic Random Sampling procedures were used to select students while simple random sampling was employed in selecting teachers as well as parents. In this study the questionnaire, physical interviews and observation approaches were used in data collection. The data were analyzed using descriptive analysis and Binary Logistic model used for inferential analysis. Low parents' income, shortage of laboratory and long walking distances to schools were found to have significant influence on the poor academic performances of the students at $p < 0.05$. Other factors that were found to influence poor academic performance included lack of English language competence, inadequate teaching and learning materials, inadequate number of teachers and unavailability of library facilities. The performance of secondary school students were therefore, found to drop every year mainly due to schools and home based factors. It is concluded that, Sumbawanga District Council should construct laboratories and dormitories to create conducive environments for learning. Also, Sumbawanga District Council and other educational stakeholders should provide learning materials to its schools because most of parents have low incomes to meet all scholastic requirements of their children.

DECLARATION

I Nyandwi Melack David do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work done within the period of registration and that it has neither being submitted nor being concurrently submitted in any other institution.

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LIST OF ABBREVIATIONS

ABE	Adult Based Education
ACSE	Advanced Certificate of Secondary Education
ADF	African Development Fund
AIDS	Acquired Immune Deficiency Syndrome
BEST	Basic Education Statistics
CIDA	Canadian International Development Agency
CSE	Certificate of Secondary Education
CSEE	Certificate of Secondary Education Examination
DEO	District Education Officer
DSEO	District Secondary Education Officer
DSI	Development Studies Institute
EFA	Education for All
ESDP	Education Sector Development Programme
ETP	Education Training Policy
GER	Gross Enrolment Rate
HIV	Human Immuno-Virus
JAST	The Joint Assistance Strategy for Tanzania
MDG	Millennium Development Goals
MoE	Ministry of Education
MoEC	Ministry of Education and Culture
MoEVT	Ministry of Education Vocational Training
N	Number of respondents in the population
n	Number of respondents in the sample
NECTA	National Examination Council of Tanzania

NGO	Non-Governmental Organization
NPE	National Policy of Education
NSEGRP	National Strategy for Economic Growth and Reduction of Poverty
NSGRP	National Strategy for Growth and Reduction of Poverty
PEDP II	Primary Education Development Plan (Phase 2)
PEDPI	Primary Education Development Plan (Phase 1)
PSLE	Primary School Leaving Examination
SBR	Student-Book Ratio
SDEO	Sumbawanga District Education Office
SEB	Socioeconomic Background
SEDP	Secondary Education Development Plan
SES	Socioeconomic Status
SPSS	Statistical Package for Social Sciences
STR	Students Teacher Ratio
SUA	Sokoine University of Agriculture
SUDET	Sumbawanga Development Trust Fund
TADREG	Tanzania Development Research Group
UCPD	UNESCO Country Programming Document
UK	United Kingdom
UNESCO	United Nations Education Science organization
UNMDG	United Nations Millennium Development Goals
URT	United Republic of Tanzania
zMoEVT	Zanzibar Ministry of Education Vocational Training

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Education is a fundamental human right as well as a catalyst for economic growth and human development (Okumu *et al.*, 2008). Education is valued because it contributes to the national development through the provision of an appropriate human resource that helps to stimulate productivity and eliminate hunger, poverty, disease and ignorance (Republic of Kenya, 2005). Furthermore, Kapinga (1992) shows that education liberates man from socio-political forces which weigh upon him and mould a new personality at global level. However, academic performance of students in secondary schools has been poor in national examination results one year after another.

Globally, investment in education is done at three levels: primary, secondary and tertiary. Mbelle and Katabalo (2003) clarify that secondary education mainly aims at meeting global challenges in science and technology as well as organizations of production processes and markets. Schultz (2002) states that investing in education leads to faster growth for developed and newly industrialized countries. That is the reason to why; developing countries especially in Sub-Saharan Africa are now paying attention to invest in education from primary, secondary and tertiary levels by increasing enrolment and improving education quality.

Studies by Miller-Grandvaur and Yoder (2002) on secondary schools education found out that Secondary schools are an important part of the educational interventions in sub-Saharan Africa. However, the main challenges in secondary school education seem to be academic performance of students. For example, Miller-Grandvaur and Yoder (2002)

report that in Mali, the national community school failure rate was about 68 % in 2000-01, and it was high for the public schools in the Sikasso Region where it was 55 %.

In East African countries, the demand for secondary school education has been increasing due to the increase in enrolment of pupils in primary schools. It renders to the expansion of secondary schools up to local level to meet the demand. The public resources are limited and governments have traditionally relied on private educational sector particularly at the post basic levels to meet the excess demand. Consequently, it has resulted to constraints on the provision of quality secondary education in the region (Wedgwood, 2006). In Uganda for example, Verspoor (2006) states that about 85% of secondary school graduates achieved below standard by 2003. Atieno *et al.* (2012) observes that the quest for the provision of quality education continues to be a matter of leading concern to both consumers and providers of the education service in Kenya and other developing countries at large. This is supported by the UNESCO (1994) report that reveals concerns for quality education has dominated the education debate from the early eighties and has remained a central issue in the twenty first century.

Tanzania being one among the East African countries, immediately after gaining political independence in 1961, proclaimed ignorance, diseases; and poverty as her scourges of development. The country has experienced high expansion of public and private secondary education since early 1990's through Structural Adjustment Program (SAPs). The rate of expansion of secondary schools was not proportional to the quality of education delivered as observed from the National Examination results. URT (2005) states that the overall aim of Secondary Education Development Programme (SEDP 1) in Tanzania is quality education which strived to increase the pass rates for division I to III from 36% in 2004 to 70% in 2009. However, the Ministry of Education and Vocational Training URT (2012)

reports that academic performance of students has been deteriorating. At national level, the trend of pass rate for Division I to III was as follows: 36.6% in 2007, 31% in 2008, 17.91% in 2009, 11.59% in 2010 and 10.05% in 2011.

In the 2011 National Form Four Examinations results URT (2012) reports that the best five regions were: Kilimanjaro (16.64%), Dar es Salaam (11.97%), Mbeya (12.04%), Coast (11.92%), and Arusha (11.90%) respectively. The bottom five regions from the last were Lindi (4.41%), Mtwara (4.99%), Tanga (5.45%), Singida (6.31%), and Rukwa (6.95%).

In the Rukwa region URT (2012) shows that the pass rate of the 2011 Form Four National examination results were 9.22%, 4.52% and 4.47 %, for Sumbawanga Municipality, Nkasi and Sumbawanga districts respectively. The results are below the national target which as reported earlier as 70%.

In the Sumbawanga District, there was only one Secondary School before 1980's that was owned by a religious organization. The second Secondary School was opened in 1984 and was owned by the community under NGO, called SUDET. During 1990's Seven Secondary Schools were built and opened. In 2000's mushrooming of secondary school occurred. They were constructed in the name of ward secondary schools. At the end of 2011, the number of secondary schools in Sumbawanga was about thirty four including thirty public secondary (ward) schools built by local communities. These are built by the efforts of local communities with both cash and in-kind contributions but are operated and managed by government and four private secondary schools. The total enrolment of students up to the end of the year 2010 was 11 128 students of which 7004 were boys, and 4124 were girls.

Academic performance of students in many secondary schools including Sumbawanga District has been associated with underlying problems such as poor socio-cultural, socioeconomic, School environmental, socio-political factors and many others that need further investigation. Therefore, it was paramount interest in this study to assess the factors influencing students' academic performance of secondary schools in Sumbawanga District.

1.2 Problem Statement

The academic performance of students in secondary schools in Sumbawanga District has been deteriorating yearly. The results of National form IV Examinations show about 12.2%, 50.7% and 49.9% students scored zero division in the year 2009, 2010 and 2011 respectively (DSEO, 2012). The high failure rate has resulted into little number of students continuing Advanced level secondary education studies and colleges. Despite the efforts made by the government of Tanzania, and community in expanding secondary schools which extended to ward level, lowering education expenses to improve the education systems, the academic performance is still poor. The ratio of performance in secondary education has not yielded the desired objectives of 70% of secondary education candidates score division I to III by 2009 (URT, 2005).

Few studies have investigated the reasons for the poor academic performance of secondary scholars such as Osaki (1999); Wilson (2011) and Omari (2002). These studies were conducted in places with differences in social settings and geographic location such as Sumbawanga District. This study therefore, assessed factors influencing the academic performance of the secondary schools students in Sumbawanga District.

1.3 Study Justification

Sumbawanga District has been selected because it is one of the districts in Rukwa region and the country at large whose secondary schools are performing poorly. Students' academic performance plays an important role in producing the best quality graduates who will in turn compete in the labor market against others without favoring those who are not competent to get the available jobs in the market. Further to that, good quality graduates are needed countrywide to help in the national struggle to attain economic and social development activities.

The study therefore aligns with Education for All (EFA) Goal 2, to be better educated by 2015 and complements the country's strategies for reducing illiteracy. The study also supports the second cluster of the NSGRP I, that emphasize on the improvement of the quality of life and social well-being which can be obtained through people to have quality education (URT, 2010). To that end, this study is also in line with the aspirations of Tanzania's Development Vision 2025 as well as the Millennium Development Goals(MDGs), all aiming at reducing poverty, hunger, diseases, illiteracy, environment degradation and discrimination by 2015 (URT, 2005). These all can be achieved through quality education to grandaunts. However, little has been researched in Sumbawanga district on the determinants that influence poor academic performance of secondary school students in the district and be given due solutions to improve the quality of secondary school academic performance which is all over the country needed.

1.4 Objectives

1.4.1 General objective

The general objective of this study was to assess factors that influence poor academic performance of secondary schools students in Sumbawanga District, Tanzania.

1.4.2 Specific objectives

- i. To identify students' based factors influencing poor academic performance in secondary schools
- ii. To assess home based factors influencing poor academic performance in secondary schools.
- iii. To evaluate school environment based factors influencing poor academic performance in secondary schools.

1.5 Research Questions

- i. What factors hampers students' academic performance in secondary schools in Sumbawanga District?
- ii. How does the environment in the homes influence students' academic performance in secondary schools in the Sumbawanga District?
- iii. How does the school environment influence students' academic performance in Secondary schools in the Sumbawanga District?

1.6 Conceptual Framework

Academic performance of students in secondary schools over a given period of time may be influenced by socio-economic factors originating from their families, school environment and the students themselves. Socio-economic, socio cultural and socio political variables influence student's performance directly or indirectly either by increasing or decreasing of the number of students' average scores of grade A, B and C for Pass and grade D and F for Fail. These have an effect in the performance in the National Form Four Examinations results to score division I to III, rendering to the number of students joining advanced secondary schools and technical colleges. Also it counts for scoring division four and zero. This conceptualization shows the complexity of factors affecting students' academic performance in National Form Four Examinations results with most variables being interrelated.

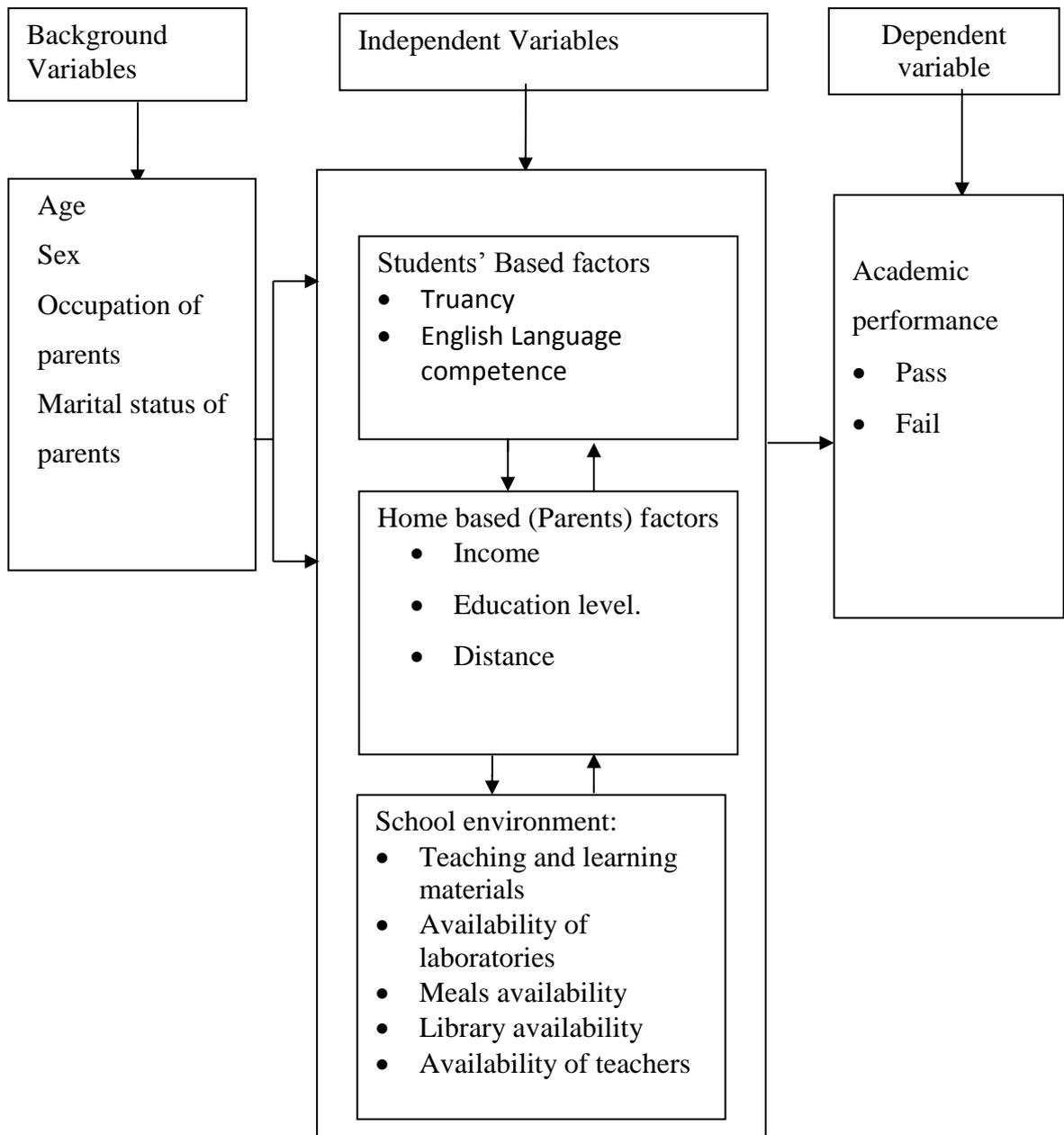


Figure 1: Conceptual Framework

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Definition of Concepts

2.1.1 Education

Education refers to the process which takes place at learning center where one is giving knowledge and the other receives it. Also, Hornby (2006) defines “Education as the process of teaching or training and learning in a school or college to improve knowledge and development skills”. On the other hand, Mlozi *et al.* (2013) defines education for sustainable development has come to be seen as a process of learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities. The Education and Training Policy (1995) of the United Republic of Tanzania, defines education as the process of initiating and preparing human through training, in their environment, to play active roles in society.

The educational system in Tanzania is predominantly formal academic and is hierarchically divided into three different levels, which are primary, secondary, and tertiary (Tilya, 2003). The existing structure of the formal education system is 7-4-2-3+, that is 7 years of primary education, 4 years of secondary education at the Ordinary level, 2 years of secondary education at the Advanced level and a minimum of 3 years of university education. Infants and young children (0-6 years old) are cared for and receive initial education both at home and in the few existing day-care centers, kindergartens, nursery-schools and other pre-schools located mostly in urban areas (Tilya, 2003).

2.1.2 School and secondary school

A school is an institution designed for the teaching of students (or “pupils”) under the direction of teachers. According to Oghuvbu (2010) a school is set up with main purpose

of bringing students from different families together under one roof-the classroom. Effective teaching and learning cannot take place without the coming together of the teacher and the learners – students.

Secondary education refers to post-primary formal education offered to persons who have successfully completed seven years of primary education and have met the requisite entry requirements (Tilya, 2003). Furthermore, Koech (2006) clarifies secondary education is the level of basic education at which learners are expected to acquire proficiency in both academic and some applied subjects. The students are expected to take the first recognized national examination that will usher them to higher education at various fields of training or direct entry into the world of work.

URT (2010) explains that Secondary education occupies a pivotal role in the functioning of the economy and the education system itself. Experience shows that the majority of the people in both the private and public sectors are expected to be secondary education leavers. The whole primary education system relies on teachers who are a product of the secondary education system. Candidates of higher and tertiary education and training are products of the secondary education system. This is the essence of being pivotal. However, the current secondary school curriculum in Tanzania is examination oriented with great emphasis laid on passing examination at the expense of acquisition of skills, values and attitudes. The argument is that there is a problem in the way young people are socialized by their parents on one hand and how they are taught at school on the other hand.

2.1.3 Categories of secondary schools

Secondary schools in Tanzania are classified into: Government schools that consist of two categories-the traditional national schools and community built schools. URT (2009)

defines Community/ Ward secondary schools as those schools which are built by the efforts of local communities with both cash and in-kind contributions but operate and are managed by the government and considered as government schools.

The second category is that of private Secondary schools. These private (non-government) schools are owned and operated by communities, NGOs or individuals. Seminaries are included in this second group of non-government schools. Religious institutions own these schools and provide both general secondary education and specific religion vocation instructions. Tilya (2003) clarifies that, private secondary schools are part of the education system in which parents have to pay for everything involved in education. The students in these schools come from two sources. One source are those who finished primary schools but couldn't secure places in government schools and whose parents are willing to pay for their education. The second group comprises of students who secured admission in government schools but whose parents are not satisfied with the services and the expected final performance in government schools. The second group is not large but private secondary schools generally outperform government secondary schools in their final examinations. A few private secondary schools are relatively well endowed schools, but the majorities are quite poor and are even often in worse shapes than public schools.

2.1.4 Academic performance concepts

The indicators of academic performance are marks scored, grades and divisions obtained by candidates with respect to the examination standard board of a country such as National Examination Council of Tanzania (NECTA). The NECTA criteria of awarding divisions is as follows: A candidate who sits for NECTA examinations is awarded divisions I, II, III, IV or 0 on meeting the following conditions: Division One (I); passes in at least 7 subjects passes at grade A or B or C in at least five subjects. Reaches an aggregate of more than or

equal to 7 points but less than or equal to 17 points, taking the best seven subjects (URT, 2012).

Division Two (II): Passes in at least 7 subjects, passes at grade A or B or C in at least four subjects and reaches an aggregate of more than or equal to 18 points but less than or equal to 21 points, taking the candidates' best seven subjects. Division Three (III); passes in at least seven subjects one of which must be at grade A or B or C or passes in at least five subjects two of which must be at grade A or B or C. Reaches an aggregate of more than or equal to 22 points but less than or equal to 25 points, taking the candidates' best seven subjects. Division Four (IV): Passes in at least one subject at grade A, B or C, or passes in two subjects at grade D, reaches an aggregate of more than or equal to 26 points to 33 points but less than or equal to 33 points, taking the candidate's best seven subjects. Division Zero (O): does not fulfill the conditions for awards of the divisions (I-IV) (URT, 2012).

2.1.5 Poor academic performance

Poor academic performance according to Aremu and Sokan (2003) is a performance that is adjudged by the examinee/testee and some other significant that shows as falling below an expected standard. Also, Asikhia (2010) described poor academic performance as any performance that falls below a desired standard. Similarly, Okoye (1982) defines poor academic performance of the individual or candidate in a learning situation as one in which a candidate fails to attain a set standard of performance in a given evaluation exercise such as a test, an examination or series of continuous assessments.

A candidate who scores below the standard is regarded as showing poor academic performance in school. Some people blame students and others blame the government

while, others blame the teachers on this matter. Aremu (2000) stresses that academic failure is not only frustrating to the students and the parents, its effect are equally grave on the society in terms of dearth of manpower in all spheres of the economy and politics. Education of secondary school level is supposed to be the base and the foundation towards higher knowledge in tertiary institutions. It is an investment and an instrument that can be used to achieve a more rapid economic, social, political, technological, scientific and cultural development in the country.

2.2 Education in Africa

In Sub Saharan Africa Governments in particular, spend only 2.4% of the World public education resources, while, the education budget of a single country like France, Italy or the UK outweighs educational spending across the entire Sub Sahara African region (UNESCO, 2005). Education should be used as a weapon to fight against various enemies like ignorance, disease; and poverty and hence bring liberation to the society. In Africa especially Sub Saharan Africa, the large part of the population is living under hostile situations of exceeded poverty, vulnerability with various infections including HIV/AIDS. Infrastructures of education in Africa are still facing many challenges and so development process is still stagnating.

Having qualified primary school graduates in all areas, will enable secondary schools to enroll the best students to join them. However, the level of investing in education to the majority of African countries does not support the attainment of producing enough qualified students to join secondary school education. This is contributed much by various factors including economic problems.

2.3 Education in East Africa

The education system in Kenya one of the East African countries is evolving steadily even though it is faced with a number of shortcomings which include inadequate

teaching/learning resources in secondary schools due to poor planning and corruption. This links to poor academic performance (Otieno and Yara, 2010). Any progress is directly associated with change. In order to advance, we need to have proper interventions in education. The second goal in the Millennium Development Goals (MDG) is to achieve Universal Primary Education by 2015.

This goal intends to guarantee children worldwide; boys and girls will be able to complete a full course of primary schooling by 2015. The massive completion of children in primary schools will consequently cause the need to expand secondary schools to accommodate primary school graduates. The whole region of East Africa and the Great Lakes at large is trying to advance in education so that the livelihood of their people can be better. There are various obstacles that face the education advancement in the region. These include civil wars and political instability especially in neighbouring countries like Somalia, the Democratic Republic of Congo (DRC), and Sudan. Other obstacles are economic and climatic problems. The combination of these problems has been in one way or another affecting academic performance at all levels of schooling. Parents have been failing to assist their kids to attend school in sustainable ways because of the above reasons.

2.4 Education in Tanzania

Since independence 1961 many reforms had taken place to address the education sector in Tanzania. In 1996, the Government of Tanzania undertook to develop the Education Sector Development Program (ESDP) to address the existing problems and face the new challenges resulting from ongoing socio economic reforms initiated in 1986 and the increasing demand for human resource development in line with the fast changing technological advancement. Policy and practice in education for about two decades have been a struggle between quality and quantity.

While the demand on educational opportunities has continued to rise, the question for quality education started to emerge very strongly in the 1990s. The quality of secondary school education in Tanzania is still facing various challenges. The African Development Fund (ADF) (2007) shows that the significant progress in the expansion of secondary schools education in Tanzania for the past two decade, but low access and quality of secondary schools education have remained to be the main challenges. The mobilization and sensitization of the people by the government in building community based secondary schools, mostly at the ward levels, got success. This is due to the country target of having one or more day secondary schools in each ward. It has achieved this goal.

URT (2011) (UCPD, 2011 – 2015) indicates that governance of education in Tanzania is shared between Tanzania Mainland and Zanzibar. In Tanzania Mainland, three entities share responsibilities for the education sector, the Ministry of Education and Vocational Training (MoEVT), the Ministry of Community Development, Gender and Children, and the Prime Minister's Office for Regional Administration and Local Government, while policy making and monitoring is entrusted to the MoEVT. Zanzibar has only one ministry in charge of the education sector, the Zanzibar Ministry of Education and Vocational Training (zMoEVT). Higher education and the national curriculum are the only area of education considered as union matters. The Tanzanian Commission for Universities accredits universities operating in Tanzania and coordinates the proper functioning of all university institutions in the country.

The system of education in Tanzania presently faces disasters in terms of resources and management in particular. Teachers are demoralized, primary infrastructure is still facing many challenges (especially the quality of buildings, play grounds, the availability of teaching and learning material). The curriculum is lacking some relevance too. Swainson

et al. (1998) indicates how teachers have been seriously demoralized and poorly motivated by their employer (Tanzania government) in the past two decades. Parents are questioning the value of sending their children to schools. Through this scenario, the majority of pupils graduating primary school education are not competent enough to attain secondary education smoothly. Meena (1995) clarifies the principle of quality underpins the constitution of the United Republic of Tanzania. Every citizen in Tanzania has a right to access to education. For this reason, the state is obliged to guarantee her children everywhere in the country boys and girls to access quality specifically basic education as a human right.

The first education policy statement was Education for Self-Reliance which stressed the need to break the colonial past and emphasized educational 'relevance'. Cooksey and Riedmiller (1997) indicates how the first phase government wanted to replace an overly academic system which serviced the elite in colonial period, but the primary curriculum never effectively incorporated skills useful for rural life. Following the formation of the Education Act Number 25 of 1978 and its amendment in the Act number 10 of 1995, the education status in Tanzania has been advancing though it has been meeting various obstacles. Some being the economic crisis and discouragement with formal schooling among pupils and parents as the quality of primary schooling deteriorated rapidly.

The terminal primary education policy that was adopted in the late 1960s restricted the expansion of post primary education while guaranteeing jobs in the public sector for small elite of secondary school and university graduates. Swainson *et al.* (1998) shows the aggregate transition rates to secondary never exceeded 15% between 1986 and 1996. Some of the strategies and activities highlighted in ESDP 2008-2017, which are addressed through SEDP II include:

- Enable practical science to be delivered through well-stocked science laboratories;
- Recruit and retain, the available trained secondary school teachers, including teachers for special needs students;
- Provide scholarship grants to students from low income households;
- Strengthen in-service courses for up-grading and professional development of secondary school teachers;
- Ensure that trainee teachers are effectively mentored during teaching practice and when posted to schools as probationer teachers;
- Increase funding for the preparation and provision of teaching and learning materials;
- Improve provision of water and sanitary facilities to secondary schools;
- Strengthen Examinations Council in setting standards and quality assurance;
- Strengthen Inspectorate bodies to monitor and maintain standards for quality improvement at school and other levels;
- Improve/expand use of ICT for teaching and learning; and,
- Improve facilities and systems of care for teachers, non-teaching staff, and students affected by HIV and AIDS.

Many stakeholders especially the private sector opted to invest in education mainly secondary education to support the government efforts of providing education to its people. These included individual people, religious institutions and cooperative unions. The investments of private sector in secondary education increased the rate of enrolments of students since 1980s (Swainson *et al.*, 1998).

The introduction of the Education and Training Policy in 1995 also contributed much in the strengthening of the education system in the country whereby clear line to improve education process was put in place. The secondary education at least grew by increasing enrolment rates. That increase continued to grow especially after the government had introduced day secondary schools and increased community participation in building the community based secondary schools at ward levels. Despite the expansion of the secondary education, the problem of low academic performance and the small number of students joining post-secondary school education and training courses is still a headache. Swainson *et al.* (1998) exposes that only a small proportion of secondary school students go on to higher education. It shows the expansion of secondary schools is not relative to academic performance. The great initiatives of interventions are needed to rescue the situation.

2.5 Secondary School Education

2.5.1 Delivery and quality

The secondary school sub system has two levels, Forms 1-4 leading to a Certificate of Secondary Education (CSE) qualification, and Forms 5 and 6 leading to an Advanced Certificate of Secondary Education (ACSE) qualification. Selection to join both levels is highly competitive, through the PSLE and CSEE respectively. Both examinations therefore serve two purposes, that of certification and selection. Those who pass ACSE are eligible to join universities and institutions of higher learning for degrees and advanced diplomas. URT, (2011) shows four categories of secondary school ownership: government, community, private and seminaries. Those schools which are built by the community but operated and managed by government are considered government schools. Most growth in education provision over the last ten years has come from these community-built schools.

Policy and practice in education for about two decades have been a struggle between quality and quantity. While the demand on educational opportunities has continued to rise, the question for quality education started to emerge very strongly in the 1990s. The quality of secondary school education in Tanzania is still facing various challenges. The demand for secondary education in Tanzania is high due to rapid improvement of primary education. The secondary school education has been able to triple enrolments in a span of four years, from 432 599 in 2004 to 1 466 402 in 2009.

During the same period enrolment in the open and distance learning has increased from 16 801 to 35 804. The number of secondary schools (both Government and Non-Government) has also increased from 1291 in 2004 to 4102 in 2009. This was also enhanced by the reduction of school fees from Tzsh. 40 000 to 20 000 per year for day secondary schools. The outcome was the increase in the number of secondary schools and the number of students joining secondary education. Consequently the target of educating girls has also been achieved since many girls can access secondary education hence bringing community development and equality within community members (URT, 2010).

When there were school fees, girls were less likely to attend or finish school; some parents with scarce resources felt that it was more critical to educate boys. But the impact of education for girls is particularly valuable, not just for individual girls, but for their families. Studies show that each year of additional schooling a girl receives raises the age at which she will marry, reduces the number of children she will bear, increases the likelihood of her babies surviving childhood, reduces the likelihood of her contracting HIV, and boosts her potential income by 10–20 %, making education one of the most vital investments in development. Tanzania eliminated school fees in 2001. When there were school fees, girls were less likely to attend or finish school; now 49% of students are girls.

CIDA (2007) indicates that; the impact of education for girls is particularly valuable, not just for individual girls, but for their families.

2.5.2 Improvement of education quality

The overall aim of the first Secondary Education Development Program (SEDP 1) was to raise the pass rate of division I to III from 36% (2004) to 70% (2009) through: in-service courses for up-grading and continuous professional development of teachers, curriculum review, improvement of school libraries, providing capitation grant for teaching and learning materials and other charges, improvement of examination structure, type and quality, expansion of production of Diploma and Degree teachers; and sensitization and education on HIV/AIDS, gender and environment (URT, 2005).

However, URT (2011) shows that quality standards of education are noticeably declining at both primary and secondary levels, a consequence of a rapid increase in the school-going population and enrolment expansion which has not been matched by a requisite supply of quality-related inputs such as qualified teachers, educational materials, sufficient classrooms, investments in school infrastructure and safety, water, sanitation and hygiene. Generally, schools tend to be neither healthy nor safe environments, particularly for adolescent girls. Lack of sufficient facilities, especially desks, classrooms, latrines, dormitories, and housing for teachers, has undermined the quality of the teaching environment. Furthermore, low wages and poor working conditions for teachers affect their ability and motivation to deliver quality education.

2.6 Education in Rukwa Region

The region has a total of 79 secondary schools among which 68 are public and 11 are privately owned. Public secondary schools had a total of 27 477 students (16 696 boys and

10 781 girls from form I – VI). Among these schools, 70 of them provide ‘O’ level secondary school education and the remaining provide education up to ‘A’ level. The total number of students who joined secondary education in public secondary schools increased from 3 672 in 2005 to 11 366 in 2010.

However, the total number of secondary schools and their distribution in each council are as follows: Nkasi has a total number of twenty one secondary schools all are owned by government. Neither seminary nor non-government owned secondary schools exist in this council. Sumbawanga Municipality has twenty four (24) secondary schools of which seventeen public secondary schools and seven (7) Non-government secondary schools.

2.7 Education in Sumbawanga District

In Sumbawanga District the government at the district level has been trying much on improving the quality of education in secondary schools. Owing to PEDPI implementation, the percentage of enrolment in primary schools has been increasing, and so increasing the ratio of students joining secondary education. There was only one secondary school owned by religious organization before 1980s. The second secondary school owned by the community under NGO, called SUDET opened in 1984. During 1990’s seven secondary schools were launched, followed by the mushrooming of more secondary schools extended to thirty four in the 2000s.

The following are data of Secondary schools in the District; Mwazyee, Laela, Mpui, Chisenga, Kaengesa seminary, Matai, Mambwe, Mzindakaya, Vuma, Kipeta, Makuzani, Ulungu, Msanzi, Ilemba, Miangalua, Mwimbi,, Kwela, Unyiha, Mombo, Kaoze, Katazi, Kasanga, Kikwale,, Milenia, Namema, Machinda, Kalembe, Memya and Nankanga. The District Council has thirty four (34) secondary schools of which thirty (30) are government

owned (ward secondary schools which are day schools) and four (4) non-governments owned secondary schools (DSEO, 2012). The expansion of secondary schools was due to the implementation of SEDP I and SEDP II programme in collaboration with community efforts and other educational stakeholders.

Despite the effort made by the government, community and other stakeholders in expanding secondary schools and increasing enrolment of students the academic performance has been deteriorating yearly as it can be observed from the results of National Form II and Form four Examination results for the three consecutive years since 2009 – 2011.

Table 1: The trend of National form II Examinations results of students for Sumbawanga secondary schools

Year	Candidates sat for Form II Exams			Candidates passed examinations				Candidates failed zero division			
	Boys	Girls	Total	Boys	Girls	Total	%	Boys	Girls	Total	%
	2009	1436	730	2166	1073	454	1527	70.5	363	276	639
2010	1724	992	2716	1094	399	1493	55	630	593	1223	45.0
2011	1439	937	2376	823	274	1097	46.2	616	663	1279	53.8

Modified from (DSEO, 2012)

Table 2: The trend of National form IV Examinations Results for Sumbawanga secondary schools

Year	Candidate sat for CSEE			Candidates passed division i-iv				Candidates failed zero division			
	Boys	Girls	Total	Boys	Girls	Total	%	Boys	Girls	Total	%
	2009	717	386	1103	665	303	968	87.8	526	83	135
2010	1231	715	1946	719	240	959	49.3	512	475	987	50.7
2011	1230	554	1784	701	192	893	50.1	529	362	891	49.9

Modified from (DSEO, 2012)

2.8 Determinants of Poor Academic Performance

Poor academic performance is most commonly determined by combining demographic, socioeconomic and environmental factors such as parents' educational level, occupational status and income level (Jeynes, 2002). It is believed that low socio-economic status negatively affects academic achievement of students in secondary schools (Hansen and Mastekaasa, 2003). Walters and Soyibo (1998) further elaborated that student performance is very much dependent on socio-economic background (SEB) as per their statement, "High school students' level of performance is with statistically significant differences, linked to their gender, grade level, school location, school type, student type and socio-economic background (SEB)." Considering physical geographical location of most secondary schools in Sumbawanga District are in rural areas where physical infrastructure are poor and limited, and therefore their communities might be affected by low socio-economic which influence academic performance.

2.8.1 Influence of sexes on academic performance in secondary schools

The relationship between gender and the academic achievement of students has been discussed for decades (Eitle, 2005). A gap between the achievement of boys and girls has been found, with girls showing better performance than boys in certain instances (Chambers and Schreiber, 2004). Gender and father's occupation are significant contributors to student achievement (McCoy, 2005). The official curriculum concerns the subjects that are taught in schools and their content. It varies from country to country and in many there is a national curriculum.

However, as the curriculum theorist Paechter (2000) points out that, though official curricula tend rarely to address gender equality with some exceptions such as Sweden and South Africa, they tend to imply certain gender assumptions; for example, that

‘power’ subjects (e.g. science, mathematics and technology) will attract males and others (e.g. languages, literature) females. This means that the content of different subjects attracts boys and girls on the basis that ‘this is what proper girls or boys do’.

In the Tanzanian context, schools are categorized in co-education especially in ordinary level secondary schools, others are purely girls and boys secondary schools especially traditional government secondary schools and some private secondary schools mostly those religious secondary schools. Research studies show that students’ performance depends on many factors such as gender and age differences can affect student performance (Hansen, 2000).

2.8.2 Influence of parents’ occupation on academic performance of students

Parents’ occupation influences the students’ achievement in academic works due to levels of their investments in their carriers that determine their level of purchasing capacity. Students’ academic achievement is negatively correlated with the low level of parent’s socio-economic status (SES) because it hinders the individual in gaining access to sources and resources of learning (Duke, 2000; Eamon, 2005). Low SES level strongly affects the achievement of students, dragging them down to a lower level (Sander, 2001). It is also observed that the economically disadvantaged parents are less able to afford the cost of education of their children at higher levels and consequently they do not work at their fullest potential (Rouse and Barrow, 2006).

2.8.3 Influences of truancy on academic performance in secondary schools

Habitual truancy can be defined as unexcused absences from school by a minor that exceed the number of such absences allowed. While truancy is widely acknowledged to be a problem nationwide, it is very difficult to find data that delineate the full extent of the

problem due to data collection and reporting issues at the school, local and State levels (Heilbrunn, 2007). Data is available from petitioned truancy cases, but there are limitations to this data since most truancy cases never reach a petition status. According to one study of the Denver truancy court, only between 2 and 4 % of students who met the State statute for truancy were subject to a court action (Mac Gillivray and Erickson, 2006). Nonetheless, trends in petitioned truancy cases suggest the breadth of the truancy problem.

Poverty and Human Development Report of 2011 URT (2012) reported that the proportion of students dropping out of school is increasing by which over 65000 students dropped out of secondary school, or 4.2% of total enrolments, compared with just over 18 000 students in 2007, or 1.9% of total enrolments (URT, 2011b, p. 78). Basic education statistic of Tanzania (BEST) URT (2011b) shows truancy as the main reason reported for students dropping out of secondary schools. In 2010, 72.7% of the students dropped out of school because of truancy. But again it is not clear why a student becomes a truant.

The incidence of pregnancy in secondary schools is much lower than in primary schools and negligible in higher classes. Truancy can start early and is associated with poor academic achievement both in the short term and in later years. The chronic absence in schools has immediate consequences for academic performance in first grade, particularly among Latino children (Chang and Romero, 2008). Additionally, the majority of students who suffer from chronic absence come from families who do not possess the resources to help the children make up for lost learning. These early patterns have long-term costs for both the individual and society at large (Chang and Romero, 2008).

Balfanz *et al.* (2008) stated that absenteeism harms more than the individual and his/her prospects. High truancy and absence rates affect the achievement of the school overall,

slowing the rate of instruction, which harms all students. Studies have also demonstrated a clear link between truancy and substance use. In the Rochester Youth Study, data comparing 14-year-olds showed that those who skip occasional classes are four times as likely to start using marijuana as those who never skip. Chronic truants (more than 9 days) are 16 times as likely (Heilbrunn, 2007; Seeley, 2008).

Recent research shows that truancy is not only the most significant risk factor for predicting first time marijuana users. It predicts 97 % of first time drug use (Seeley, 2008). There is a linear relationship between the two; the greater number of days of truancy, the greater the drug use. Henry and Huizinga (2007) suggested that the strong relationship between truancy and the start of substance use may be largely due to the amounts of unsupervised time that truants spend with peers. Yahaya *et al.* (2010) indicated activities done during truancy such as helping the family; joining the negative groups and crime are at the low level and working part-time together with loafing are at the medium level. Furthermore, Oghuvubu (2010) reported that student attendance in Nigeria is low in rural and highly populated in urban schools.

2.8.4 Effects of competence in language on the academic performance in secondary schools

The gap between linguistic repertoires of the elite and of the masses is evident in that although the majority of Tanzanians are competent in Swahili, only a small percentage are fluent in English, the language of instruction. The elite ensure their children attain competence in English by enrolling them in good quality English-medium primary and secondary schools, and/or in private tuition classes. Although all Tanzanian children theoretically have access to English, only those attending good quality English-medium schools or who receive good quality private tutorial in English attain competence in the

language and perform well at secondary and post-secondary levels. Thus Scotton (1993) had the opinion that decisions made by the government to facilitate the use of English in primary education benefit an education-based elite and proto-elite of entrepreneurs.

Tanzania like other multilingual communities globally has not eluded the problem of language in education. The Language of Instruction (LOI) nearly 50 years now since independence has always been a matter of public raging debate. This being the case, the poor performance of students in their academic achievement in their national examinations, for many years has been directed to low proficiency of the LOI which is English. This has been considered to be the major cause of not only the decline in academic achievement but also the general falling of the standards of education. Indeed, proficiency in the LOI is an important factor in educational performance.

Despite the presence of some few studies in Tanzania that show, in some way, the connection between LOI and academic performance, there is still a misunderstanding and disbelief in the existence of connection between test scores and actual performance. Judging from the work, underperformance of the graduates, the general public, which is the final consumer of the services provided by the former, have often failed to see the connection between graduates' actual performance and scores that are shown in their certificates or transcripts. Fakeye and Ogunsiji (2009) observed that students' success in school depends upon their being proficient in the LOI.

The LOI plays a crucial role in learning, as Malekela (2003) observed that if the learner is handicapped in the LOI, then, learning may not take place as the instructor and the learner will not be communicating effectively. Therefore, the overall performance of Tanzanian students depends on the LOI to a great extent. In connection to the relationship between

English Language Proficiency (ELP) and academic achievement, it is presumed that students who have high proficiency in English are expected to perform well in English as a subject and in other school subjects. In the Tanzanian situation, this is not unlike saying low ELP is tantamount to poor performance. Harb and El-Shaarawi (2006) found out that the most important factor with positive effect on students' performance is students' competence in English. If the students have strong communication skills and have strong grip on English, it increases their academic performance. The performance of the student is affected by communication skills. It is, therefore, possible to see communication as a variable which may be positively related to performance of the student in open learning.

2.8.5 Influence of parents' levels of education on student academic performance

The home environment also affects the academic performance of students. Educated parents can provide such an environment that suits best for academic success of their children. The school authorities can provide counseling and guidance to parents for creating positive home environment for improvement in students' quality of work (Marzano, 2003). Many scholars pointed out that the academic performance of students heavily depends upon the parental involvement in their academic activities to attain the higher level of quality in academic success (Barnard, 2004; Shumox and Lomax, 2001). Students with high level of socioeconomic status (SES) perform better than the middle class students and the middle class students perform better than the students with low level of socio-economic status due to their parents or family members involvements in their education (Kahlenberg, 2006; Kirkup, 2008).

Krashen (2005) concluded that students whose parents are educated score higher on standardized tests than those whose parents were not educated. Educated parents can better communicate with their children regarding the school work, activities and the information

being taught at school. They can better assist their children in their homework and participate at school (Trusty, 1999).

2.8.6 Influences of parents' income in academic performance in secondary schools

The literature on achievement consistently has shown that parent education is important in predicting children's achievement (Klebanov *et al.*, 1994; Haveman and Wolfe, 1995; Smith *et al.*, 1997). The mechanisms for understanding this influence, however, have not been well studied. In general, family process models (Linver *et al.*, 2002; Yeung *et al.*, 2002) have examined how parenting behaviours, such as the structure of the home environment influences children's achievement outcomes. Alexander *et al.* (1994) found that parents of moderate to high income and educational background held beliefs and expectations that were closer than those of low-income families to the actual academic performance of their children, Low-income families instead had high expectations and performance beliefs that did not correlate well with their children's actual school performance.

Halle *et al.* (1997) found out that mothers with higher education had higher expectations for their children's academic achievement and that these expectations were related to their children's subsequent achievement in Mathematics and Reading. They also found out that these more positive beliefs and expectations predicted higher amounts of achievement-related behaviour by mothers in the home as well as more positive perceptions of achievement by the children.

Otieno and Yara (2010) asserted that, learners from low socio-economic status families tend to value domestic activities more than schooling. Such children are subjected to child labour and have little time for studies. They indicated that in most developing countries,

there are many families whose members despite their full days hard labour do not find it possible to make two ends meet. Children of tender age in such families have to work for their living. These coupled with little government financing of education sector makes many families unable to meet the requirements of their children's education thus contributing greatly to their poor academic performance.

2.8.7 Influence of textbooks and academic achievement

A textbook constitutes an important tool for academic achievement. Many writers (Heyneman and Loxley 1982, Walberg 1984, Beeby 1986) have variously highlighted the contribution of textbooks to academic achievement. Studies have revealed in some instances, that textbooks provide the only source of information for students as well as the course of study for the subject. Exploring the effects of textbooks and other factors on student achievement gain, Lockheed *et al.* (1986) found out in their longitudinal data from a national sample of eight grade Mathematics classrooms in Thailand that textbooks may affect achievement by substituting for additional post-secondary Mathematics education of teachers and by delivering a more comprehensive curriculum. Earlier in his own contribution, Altbach (1983) had the opinion that; "Nothing has ever replaced the printed word as the key element in the educational process and, as a result, textbooks are central to schooling at all levels".

Squire (1991) writing on teachers reliance on textbooks, stated that those seeking to improve the quality of education believed that improvements in instructional materials would inevitably lead to changes in actual teaching. For many teachers, textbooks can provide an excellent and useful resource, without assuming the position of the teacher. Odulaja and Ogunwemimo (1989) argues that while the selection of a textbook has been adjudged to be of vital to academic achievement, it is sad to say that relevant textbooks are

not always available for teaching and learning activities. Lack of textbooks could be identified with the high costs.

When this happens, he further noted that students cannot afford to purchase them. The implication therefore is that the teachers will serve as the only source of information. Where the teacher is the only source of information his or her selection of textbooks may be biased. Biased in the sense that his or her selection may be based on reasonably unsatisfactory criteria such as its attractiveness in terms of colour, print, photograph, the author's qualifications and the recognition he/ she has been accorded in some other publications. In his study on resources and resources utilization as it correlates to academic achievement, Oni (1992) reported that there was a significant relationship between recommended textbooks and academic performance in introductory technology, Business Studies and Geography.

2.8.8 Influence of Libraries and academic achievement

Hornby (2010) described a library as a building or room in which collection of books, tapes, newspapers, journals; and articles are kept for people to read study or borrow. Library is an essential factor in the teaching-learning process. It forms one of the most important educational services. The educational process functions in a world of books. The chief purpose of a school library is to make available to the pupil, at his easy convenience, all books, periodicals and other reproduced materials which are of interest and value to him but which are not provided or assigned to him as basic or supplementary textbooks.

The importance of a library has been demonstrated by the government when she expressed in the National Policy on Education (NPE) that every state Ministry needs to provide

funds for the establishment of libraries in all here educational institutions and to train librarians and library assistants. As a resource, it occupies a central and primary place in any school system. It supports all functions of school-teaching and provides service and guidance to its readers. Fowowe (1988) clarifies that a library must be up-to-date and at the same time have older materials. It must be properly supported financially to fund materials and services among others.

He concluded that a well-equipped library is a major facility which enhances good learning and achievement of high educational standards. In his words, Farombi (1998) reiterated that school libraries may not be effective if the books therein are not adequate and up-to-date. Its impact may only be meaningful if the library could always be opened to the students for a considerable length of time in a school day. With all the above mentioned facts, it is sad to know that many schools operate without libraries (Shodimu, 1998). Ogunseye (1986) had earlier noted that the total absence of an organized school library would continue to spell a doom for thousands of secondary school students. This statement clearly implied that many schools operate without libraries and this had affected the academic performance of their students.

Moreover, Fuller (1985) identified a school library as an instructional resource which may significantly influence pupils' achievement after controlling for pupils' family background. He found out that one effect of library size and its activity have been positive in 15 out of 18 analyses. Those schools with well-equipped library normally maintain high academic performance. In another study on raising school quality in developing countries, Fuller (1985) found out that collection of books kept for reading in the library is related to performance.

2.8.9 Laboratory and academic achievement

Laboratory has been conceptualized as a room or a building specially built for teaching by demonstration of theoretical phenomenon into practical terms. Farombi (1998) argued the saying that “seeing is believing” as the effect of using laboratories in teaching and learning of science and other science related disciplines as students tend to understand and recall what they see more than what they hear or were told. A laboratory is essential to the teaching of sciences. The success of any science course is much dependent on the laboratory provision made for it. Affirming this, Ogunniyi (1983) says that the laboratory occupies a central position in science instructions. It could be described as a place where theoretical work is put into practical.

Practical in any learning experience involves students in activities such as observing, counting, measuring, experimenting, recording, observation and carrying out field work. These activities are totally different from the theoretical work which involves listening to talks and taking down notes from such talks. According to Ango (1986) laboratory work, stimulates learners’ interests as they are made to personally engage themselves in useful scientific activities and experimentation. Science is not only products or processes. It affords the learner the basic skills and scientific method of problem solving and knowledge obtained through laboratory work. It promotes long term memory.

Laboratory helps to provide a forum wherein the learner is given the exercise to subjects, his beliefs, ideas, statements, theoretical propositions to some forms of experimental test (Soyibo, 1987). To maintain and arouse the interests of students in subjects involving laboratory work, the teacher should be effectively involved in order to transfer knowledge and facts to learners for a good performance in any examinations. In line with this, one then pauses to ask, to what extent has laboratory been able to achieve its objectives.

Odulaja and Ogunwemimo (1989) highlighted that the teacher assumes a position of dispenser of knowledge with the laboratory serving the function of drill or verification. They further explained that at the other extreme, the teacher assumes the position of guidance to learning and laboratory as a place where knowledge is discovered.

However, there are growing evidences that teachers do not exhibit behaviour which are complementary to achieving the stated objectives. They include methods of teaching practical work; inadequacy or absence of well-equipped laboratories; high enrollment of students; inadequacy of resources for teaching and learning practical work; quantity and quality of teachers. Nwachukwu (1984) discovered in her survey of the resources for the teaching and learning of Biology in some of the new secondary schools in Lagos that there was a general inadequacy of resources. She also found out among other things that (a) out of 80 per cent of the old schools that accepted as having laboratories, none had a well-equipped laboratory and (b) 40 % of the schools had no laboratory at all, while the remaining 60 % had rooms' labeled "laboratory" without adequate apparatus. She concluded that teaching of Biology practical by teachers would be difficult and that students learning experiences would be limited.

In his contribution, Balogun (1982) admitted that no effective science education programmes can exist without equipment for teaching. Writing on the situation of our secondary schools today, Okoli (1995) reported that laboratories have become shelves of empty bottles of chemicals. In terms of academic achievement, Soyibo and Nyong (1984) have shown that schools with well-equipped laboratories have better results in the school certificate science examinations than those that are ill-equipped. Corroborating this, Gana (1997) reiterated that students instructed entirely by the laboratory methods had higher

attitude's scores but lower achievement scores than students instructed entirely by the traditional lecture mode.

Yadar (2001) observed that no course in science and mathematics can be considered as complete without including some practical work. The practical work ought to be carried out by individuals either in science laboratories or in classes. At school level, practical work is even more important because of the fact that we learn by doing. Scientific practices and applications are thus rendered more meaningful. It is an established truth that an object handled impresses itself more firmly on the mind than the object merely seen from a distance or in an illustration.

2.8.10 Meals provision at school and academic performance in secondary schools

Food is important for human being as well as students and is a part of education. The findings by Kaklamanou *et al.* (2012) stated that students need fuel to actually make them study well and be attentive and manage the responsibility of class. It has been discovered that skipping breakfast can adversely affect problem-solving tasks such as mathematics grades which require problem solving skills. Most of the secondary schools in the Sumbawanga District did not provide meals and breakfast to their students who are prone to poor academic performance.

Lauglo and Maclean (2005) observed that education should develop moral aesthetic, physical and practical capacities not just cognitive knowledge organized in academic disciplines. They added that practical subjects can have the additional justification because they allow students to learn from more active doing than what is typical in academic subjects.

2.8.11 Influences of teachers on students' academic performance

The other consequence is low number of teachers to students' ratio especially in most of the public schools. The pupil to teacher ratio stands at an average of 52:1 and is as high as 72:1 in some regions. The few teachers in the government payrolls are poorly remunerated as a result most of them take up part time employment or private business enterprise in order to make ends meet. Corcoran *et al.* (1988) found out that; the problems of poor working conditions to teachers result in higher absenteeism, reduced levels of effort, and lower effectiveness in the classroom, low morale, and reduced job satisfaction. Where working conditions are good, they result in enthusiasm, high morale, cooperation, and acceptance of responsibility. Teachers have been shown to have an important influence on students' academic achievement.

They also play a crucial role in educational attainment because they are ultimately responsible for translating education policy into action and principles based on practice during their interaction with the students (Afe, 2001). Both teaching and learning depends on teachers. Uchefuna (2001) clarifies that no wonder an effective teacher has been conceptualized as one who produces desired results in the course of his duty as a teacher.

In Tanzania, URT (2012) reports that, the total number of teachers in secondary schools more than doubled between 2007 and 2011 (from around 23 000 to 52 000). But, given the large rise in enrolment, the Students-teacher ratio (STR) in 2011 is the same as in 2007; the STR is 34:1. Despite the greater number of secondary teachers, the proportion of female teachers has remained around 30% on average for all secondary schools. However, private secondary schools tend to have significantly lower class sizes than government schools. The PTR in government schools in 2011 was 38:1 compared with 22:1 in private schools. Data on teacher qualifications show that 85% of all secondary school teachers had

degrees (31%) or diplomas (53%). About 15% of teachers were not qualified to teach at secondary level (URT, 2011b).

2.9 Gaps Identified

There is clearly evidence from the above cited studies that students', home and school environments based factors influence secondary schools academic performance in some parts of the world. Factors such as degree of competence of English as language of instruction, family's social economic status (income of parents), distance from the school and availability of laboratory facilities affect education achievement of students as they cause their academic performance to be poor and limit them from joining in the advanced institutes.

However, little attention has been paid on looking at sources of these factors. It is significant to note that the consequence that exacerbated the education inequalities in some parts of the country (Tanzania) such as Sumbawanga are due to historical background since colonialism and perpetuated even after her independence. Some areas have remained at disadvantages. Few studies carried out in these areas and those carried out are based on other issues such as primary teacher professional misconduct and other related education development as a whole. Those studies carried out did not identify the determinants of poor academic performance of students in these secondary schools, and the way of getting out from these constraints. Furthermore, some secondary school graduates in some areas of education which do not help them adequately to compete in the labour market and improve their life quality and social well-being as they expected.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Description of the Study Area

This study was conducted in Sumbawanga District, Rukwa Region. The District has seven (7) Divisions, 32 Wards, and 202 Villages. The 2012 population and housing census results indicate that the district has a population of about 305 846 (149 062 males and 156 784 females) with the annual growth rate of 3.2% (URT, 2013). The district is currently sub divided into Kalambo and Sumbawanga District councils. It was selected because it shows the highest failure rate in the region (URT, 2012). The District borders Zambia in the South, Mbeya Region (Mbozi District) in the South-east, Lake Tanganyika to the South-West, and Nkasi District to the North. The area of the Council is 13 586 square kilometers (URT, 2002). Sumbawanga District has been selected because is among the least performing District academically in secondary schools. URT (2012) statistics show that about 1863 candidates who sat for National Form Four Examinations in 2011, only 86 candidates (4.78%) achieved Division I to III and a total of 1768 candidates 95.23% achieved Division IV and 0 (failed) who cannot be selected to join Advanced Secondary schools.

3.2 Research Design

The study used a cross sectional design which allows the information to be gathered at one point in time (Krishnaswami, 2004). The survey was chosen because it employs the use of questionnaire or interview procedure to collect data (Johnson and Christensen, 2004). This research design was chosen because of the advantages it has over the other designs. Two general approaches were used due to the nature of the study. Data collected were used for

purpose of simple statistical description, interpretation and to determine the relationship between variables that were the focus of the survey.

3.3 Sampling frame, Sample Size and Sampling technique

3.3.1 Sampling frame

Cooksey and Lokuji (1995) defined a sampling frame as the list of the entire population from which the sample is to be drawn. Population refers to an aggregate of people or things that a researcher has in mind from which one can obtain information and draw conclusions (Franken and Wallen, 2000). A population targeted for a specific study shares a number of common features. In this study the target population was limited to pupils, secondary school teachers, parents, heads of schools and District Secondary Education Officer.

3.3.2 Sample size

There were a total of 225 participants as sample size involved in this study. This study included one (0.44%) education officer, 4(1.8%) were heads of schools, 36(16%) secondary teachers, 64(28.4%) parents and 120(53.3%) students from the sampled secondary schools, wards, villages and district secondary education office within Sumbawanga District Council.

3.3.3 Sampling technique

Sampling techniques are methods used in selecting a sample. According to Krishnaswami (2004), sampling techniques are classified into two types; Probability and non-probability sampling. In this study, both probability (simple random) and non-probability (purposive) sampling methods have been used.

Different sampling techniques were used during data collection. Random sampling used to select 4(12.5%) wards from 32 wards which were found in the District. One secondary school and two villages were randomly selected from each ward. Also 36(16%) were randomly selected from the four sampled secondary schools. Systematic random sampling was employed during selection of 120(53.3%) students in schools and purposive sampling was used to select classes (form IIIs and form IVs), 4(1.8%) heads of schools, one (0.44%) secondary education officer and 64(28.4%) parents of students who were studying in the respective sampled classes and schools from their selected villages. According to Kothari (2004), Social Science Researches subjectively select purposive sample to a judgmental samples in an attempt to obtain a sample that appears to be representative of the population. From that reason parents of students who sampled from their selected schools were purposively sampled to represent others with large catchments and small catchments to assure equal participation in order to understand factors for variations. The heads of schools and the education officer were also purposively selected and they were used as key informants to capture important information.

3.4 Data Collection

The study used multiple technique research approach where both quantitative and qualitative methods were used. Two types of data were collected that is primary data and secondary data.

3.4.1 Primary data

Primary data were collected from households (parents/guardian, teachers and students within the sampled schools) using structured questionnaire consisting of both open and close ended set of questions. Personal in-depth interviews were also employed to administer the tool. Interview with key informants were guided by well-structured

interview checklist. Data gathered in this method includes the entire information collected by using structured questionnaire. It helped to understand reasons of students to perform poorly and eventually to get their opinion on ways of reducing this problem.

3.4.2 Secondary data

In this study, the secondary data were collected from Sumbawanga District Office captured to get the number of qualified and unqualified teachers, infrastructures such as desks, libraries, dormitories, desks, students' book ratio, dining halls, teacher' houses, as shown in (Appendix 2 and Table 1, 2, 8,). Also it captured important students' records about students' academic performance from heads of schools offices and from internet the data obtained were the NECTA results of CSEE students from sampled schools since 2008 to 2012 (Appendix 1 and Table 1, 8, 9, 10, 11 and 12).

3.5 Data Analysis

To analyse data, the researcher used the Statistical Package for Social Sciences (SPSS) version 16 in coding, entry and analysis of data, particularly computation of frequencies, mean, crosses tabulation and percentages. Qualitative data were descriptively analyzed. Binary logistic regression model was also used for inferential analysis to determine the impact of some students, home based (parents) and environmental factors on the chances of students failing (Grade D and F) or passing (Grade A,B and C) in continuous assessment examinations to determine factors influencing poor academic performance of students in Sumbawanga District.

The model state that, $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 \dots + e_i$

$Y = 1$ if a student pass the examinations and 0 if a student fails the examinations.

α = a constant term showing the interception of factors influencing student poor performance, $\beta_1 X_i$ = parameter for independent variables namely age of student, Sex, parents' education level, occupation of the parent, income of the parents, provision of meals in school, truancy, peer group, competence in English language of instruction, walking distance, teaching and learning materials, inadequate laboratories, libraries and availability of teachers.

e_i = random error term or residual.

β_1 to β_n = Coefficients

Where:

$Y = 1$ if a student has passed examinations, 0 otherwise (fail)

α = Constant term

X_1 = age of a respondents in years.

$X_2 = 1$ if the sex of respondent is male, 0 the sex is female (or otherwise)

$X_3 = 1$ if the occupation of parents of a student is peasant, 0 otherwise

$X_4 = 1$ if the education level of parents is non-formal education, 2 if the education level is primary, 3 if education level is secondary and 4 if education level is tertiary

$X_5 = 1$ if there is existence of truancy, 0 if no existence of truancy

$X_6 = 1$ if a student is competent in English language, 0 otherwise

$X_7 = 1$ if income of parents is high, 0 if parent's income is low

X_8 = Walking distance of a student in kilometers

$X_9 = 1$ if learning and teaching materials are adequate, 0 if otherwise

$X_{10} = 1$ if laboratory facilities are adequate, 0 if otherwise

$X_{11} = 1$ if library facilities are adequate, 0 if otherwise

$X_{12} = 1$ if teachers are adequate, 0 if otherwise

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Background Characteristics of Respondents

4.1.1 Age and sex of respondents

This research included both sexes and age as shown in the results Table 3 in order to avoid information than the other. Not only that, some information could be hidden by one sex or age group due to personal interest but also can be disclosed by the other. In so doing the study believed on the need to acquire all necessary information from males and females.

The age groups of the respondents are presented in Table 3. The students respondents whose age ranged from 14 – 15 years were about three-quarters (74.2%) and those of age ranging from 16 – 17 years were more than a quarter (25.8%). The distribution of respondents in groups of parents and teachers was as follows; about 43.2 % respondents falls to less than forty one years old and 56.8% of parent respondents' age falls above forty years old. Likewise, from teachers group about 81.3% respondents' falls below 41 years and only 18.7% had the age above 40 years.

The sex groups of males and females are presented in Table 3 depending on the types of respondents. In the students respondents 55.8% were males and 44.2% were females. From the parents 46.9% were males and 53.1% were females. While from teachers 80.6% were males and 19.4% were females. It can be seen the low participation of females in teachers group was due to the fact that the number of teachers employed for teaching in secondary schools located in rural areas is very low. Generally about 57.3% respondents were males whereas about 42.7% respondents were females.

Table 3: Age, Sex and Occupation of Respondents

Age	Age category in years	Percentage
Students (n=120)	14-15	74.2
	16-17	25.8
Parents (n=64)	Less than 41	43.2
	Greater than 40	56.8
Teachers (n=36)	Less than 41	81.3
	Greater than 40	18.7
Sex of students	(n=120)	
Male	67	55.8
Female	53	44.2
Sex of Teachers	(n=36)	
Male	29	80.6
Female	7	19.4
Sex of Parents	Parents (n=64)	
Male	30	46.9
Female	34	53.1
Occupation	Frequency (n=120)	
Peasant/farmer	105	87.5
Civil servant	9	7.5
Business	6	5.0

4.1.2 Occupation

The occupation of parents/guardians of students is also presented on Table 3. About 88% of parents were peasants, 7.5% were civil servants and 5% were involved in business. The poor academic performance of students is posing a problem to educators and a serious concern to parents. It is revealed that the quality of parents and home backgrounds of a student goes a long way to predict the quality and regularity of the satisfaction and provision of a child's functional survival and academic needs. Poor parental care with gross deprivation of social and economic needs of a child, usually yield poor academic performance of the child.

The study revealed that more than four-fifth of parents were peasants whose income from their small farms of average of one hectare square which accompanied with low quality input resulting into inadequate output which is not enough to sustain a households home consumptions and for incurring scholastic requirements of a student including school fees. A student tends to develop fear of being chased from class and eventually lose concentration in studying. Whence, low income of parents links to students' poor academic performance.

4.2 Students Based Factors Affecting Academic Performance in Secondary Schools

4.2.1 Truancy

The research results indicate that (65%) of student respondents reported that there was a case of absenteeism at their schools. Whereas, (35%) of students reported that disagreed with the concept of existence of truancy in these secondary schools and that it has less contribution on poor academic performance in these secondary schools. There is relationship between truancy and poor academic performance. The relationship is not statistically significant shown in Table 13, but it has a negative effect on the academic performance in the study area.

Table 4: Student based factors influencing poor academic performance (n=120)

Factors	Agree		Disagree	
	Frequency	Percentage	Frequency	Percentage
Truancy	78	65	42	35
English language	72	60	48	40

There is no single underlying problem that causes absenteeism in the study area, but multiple factors rooted from socio-economic and socio-cultural factors such as low economic status of parents and gangsters. This study shows that about three quarters of

respondents reported that truancy is influenced by low economic status of parents who cannot pay school related expenses, such as buying uniforms and providing other scholastic requirements in time. Also, about three quarters of the respondents perceived that truancy is influenced by students getting involved in criminal groups among the community they live such as to use marijuana with their peers.

The truancy in the Sumbawanga rural areas is commonly associated with low socio-economic status of these communities in which truants involve themselves in agricultural activities and casual labour. Students tend to develop negative attitudes towards school because of scarce employment opportunities in private and public sectors. This resulted into poor attendance of some students in classes. For example, some truants were saying that: *“There is no need of wasting time at school because numerous secondary graduates are roaming around without a recognized job employment either from public or non-public sector in rural and urban areas respectively”*.

This notion of scarce employment opportunities was spreading at a high rate among students that consequently demolishes their studying spirit and eventually lead them performing poorly in their academic works. The findings are in line with the study done by Balfanz *et al.* (2008) who observed that absenteeism harms more than the individual and his/her prospects. High truancy and absence rates affect the achievement of the school overall, slowing the rate of instruction, which harms all students. It is also, on line with Heeyoung (2010) who observed that being absent from class decrease a student’s ability to learn. It is very challenging to succeed if a student misses too much school work, because it is hard to catch up. Truants students lose interest in schooling which results in low academic performance.

4.2.2 Influence of English language competency and academic performance

Findings in Table 4 present responses on English language competence of students and the way they influence poor academic performance. About two-fifth (40%) of respondents said that they were competent in English language while 60% of them reported that they were not. About 77.8% of teacher respondents showed that incompetence of students to use English language reduces their efficiency in the academic works. Although the results in this study show that the relationship between English language competence and poor academic performance is not statistically significant as shown in Table 13 but it indicates that the academic performance is negatively affected by incompetency of English language.

The language of instruction in secondary schools in Tanzania curriculum is English with the exception of Kiswahili subject (URT, 1995). During the interview of this study one student had asked; what was the language that is commonly used during their private study; he responded that: *“It is very obvious that Kifipa is spoken at large by most students mixing with Kiswahili and English is spoken mainly during class sessions. He clarified by insisting that most of the students are selected from the primary schools located in the same ward whose habitants are Fipa ethnic group”*.

Another respondent from Mzindakaya Secondary School lamented that: *“Incompetence of English language contributed to students’ poor academic performance because the chances of competency spirit that could be instigated by students from other regions was limited due to ward wise selection criteria of students that restrict them to be enrolled in secondary within their ward.”*

It was evident that incompetence of English language as a problem in their examinations results. For example, in the 2012 national form four examinations results of students revealed that, about 94.1% of Msanzi, 86.1% of Mpui, 84.5% of Matai and 80.45% of Mzindakaya secondary schools were failed by scoring grade F. whereas, about 85.84% was the average failure rate of candidates who scored F grade in the study area. This study is in line with that of Komba and Wilson (2012) who argued that one of the factors frequently mentioned as a cause of poor academic performance in examinations is the language of instruction (LOI) that students who are not proficient in English. This made the students facing difficulties in learning which lead them to poor academic performance. Incompetence of speaking, writing, and reading in secondary schools has rooted from the level of primary school education, because the curriculums of Government primary schools use Kiswahili as the medium of instruction.

Most of the students in the study area use English as their third language. More than 95% of students in the study area of Sumbawanga District originated from the local area and so they use the local language as their first language (Kifipa). Kiswahili is their second language. English as a language of instruction leaves students out and divert them from concentration in the subject matter. Good competence in English language enhances effective communication skills of students and eventually influences their academic performance and vice versa.

4.3 Home Based Factors Affecting Academic Performance in Secondary Schools

4.3.1 Parents' income

The results in this study show that the relationship between income and poor academic performance is statistically significant at $p < 0.05$. Low income status of parents has a greater contribution to poor academic performance. About 83.3% of parents showed to

earn income below the mean income of Tsh. 902 000 per year, while only 16.7% earned income above the mean. The parents 'low income was statistically significant to influence students 'poor academic performance at $p < 0.05$. The study showed that the majority of parents have low incomes below the mean. Parents are responsible for taking care of their children's education expenses. They are enforced to have adequate sources and resources of funds to sponsor their children not only to cover education expenses but also making provision of basic needs to their families. Low incomes of parents in the study area may have an impact of failing to pay school fees, buying school uniforms and other scholastic requirements needed for students and eventually causing students to become truants, a factor that also links to poor academic performance.

This finding agrees with the findings of other scholars such as Johnson (1996) who stated that poverty of parents has resilient effects on their children's academic works. It causes them to lack enough resources and funds to sponsor their education. United States Census Bureau (2000) that found the relationship between poverty and student's performance is not simple and direct and found that a student from a family of low economic status plays a huge role in their own education. Parents with lower incomes often have to work longer hours to earn their small income.

Poverty is an important factor accounting for differences in performance and achievement across rural and sub-urban districts. Along with parents' ability to educate their offspring, the economic status of people plays a huge role in their own education. Sclafani (2004) noted that parent's income correlates with negative school outcome but, it is not always true that lower-income parents are neglectful parents, but it is easy to slip into that stereotype under extreme pressure. Nevertheless, Kirkup (2008) elaborates that the students with high level of SES perform better than the middle class students and the

middle class students perform better than the students with low level of SES Therefore low income is statistically significant to poor academic performance.

Table 5: Parents' income (n =64)

Parents' income per year	Frequency	Percent
100 000-500 000Tsh	30	46.8
501 000-1 000 000Tsh	20	31.2
1000 001-1 500 000Tsh	4	6.3
1 500 001-2 000 000Tsh	1	1.6
2 000 001-2 5000 000Tsh	2	3.1
2 500 001-3 000 000Tsh	4	6.3
Greater than 3 000 001Tsh.	3	4.7
Total	64	100
Minimum	123 000	
Maximum	3 695 000	
Mean	902 000	

4.3.2 Education level of parents

The study results as presented on Table 6 indicate that 5.0% and 10% were male and female parents who did not attend primary school education respectively. Meanwhile 2.5% of female parents have partly attended primary schools. More than four fifth (79.2%) and more than nine tenth (77.5%) were male and female parents who completed primary school education respectively. Also about 13.3% and 9.2% were male and female parents who attended secondary school respectively. Furthermore 0.8% of the female parents have certificate and 2.5% of male parents have diploma. The implication of the study result is that education level of parents had linkage to poor academic performance of their children. Parents have the primary responsibility of instilling ethics of hard working and educational achievements in their children. Sumbawanga District secondary education officer and

heads of secondary schools pronounced that, inadequate awareness of parents leads to insufficient supports of their children's education achievement. The data from the study areas in Sumbawanga District reveals that, more than four-fifth of parents could not provide adequate encouragement and other educational support to their children that contributed to their poor academic performance.

The study is line with Oloo (2003) who observed that, children whose parents are of high educational scales have a far better statistical chance of participating in secondary education. Also, parents with high level of education greatly enhanced students' academic achievement. From this study, low level parents' education is negatively influences academic achievement of their children. It is more evident that, parents' education and encouragement are strongly related to improved students' academic performance. In the oral interview between the researcher and some parents, they asked whether they countercheck their children's notes book at least once per week, but responded that they do not do it even once per term. Hence, parental influence is an important factor affecting Students' achievement.

4.3.3 Distance from home to school

The study findings showed that 35.8 % of the students indicated that distance from home to school was between one to two kilometers, and about 24.2% reported that they were living within three to four kilometers and 30.8% use five to six kilometers to and from school while 9.2% of the respondents (students) reported that they were living more than seven kilometers away from school. Distance is a factor that influences students' performance in secondary schools. Long distances from their residence to schools were one of the major factors explained by respondents to have been affecting their academic performances. This is true as it was statistically significant at $p < 0.05$ from binary logistic

analysis as indicated in appendix 1. About (40%) of the respondents reside six kilometers away from their schools. This long distance makes students to wake up before six o'clock if they are to enter the classes earlier; otherwise they are likely to enter the classes late which bring many negative impacts in relation to their academic performances (Table 6).

The major means of transport used by these students was walking. About (75 %) interviewed respondents walked to and from school. A quarter (25%) of the respondents went to and from school by bicycles. However, none of the respondents went to and from school by car or motor cycle. It is obvious that, students arrived at their school tired which results into lack of attention to the subjects being taught and sometimes sleeping in the classes thus learn nothing, consequently performing poorly in their academic work. This type of transport was noted to be cheap and affordable to most students though it needed one to be physically healthy to manage riding a bicycle for a distance of more than seven kilometers.

Students did not use motor cycles or cars as their means of transport not because all students were coming nearby the school premises but, because their families were too poor to buy them. Many residents of Sumbawanga live in the rural areas where the infrastructure is still bad. More than 85% of them are peasants. What they produce has no reliable markets a factor that limits their purchasing capacity of motorcycle. Therefore, walking for a long time contributed to poor academic performance of students in this study area.

Table 6: Education level of parents and distance from home to school (n = 120)

Education level of parents	Frequency	Percentage
None	6	5.0
Primary education	95	79.2
Secondary education	16	13.3
Certificate	0	0
Diploma	3	2.5
Total	120	100
Distance from home to school		
1-2 km	43	35.8
3-4 km	29	24.2
5-6 km	37	30.8
7-8 km	11	9.2
Total	120	100

4.4 School Environment Based Factors

School environment include the classrooms, libraries, laboratories, teachers' qualities and quantities, school management, teaching and learning materials. All these are variables that affect students' academic performance (Ajayi, 2001 and Oluchukwu, 2000). Hence, the school environment remains as an important area that should be studied and well managed to enhance students' academic performance.

4.4.1 Teaching/learning materials in secondary schools and academic performance

The findings in this study show that most of the schools observed had inadequate teaching and learning materials. About 64% of students and 83.3% of teachers' respondents indicated that schools in Sumbawanga have inadequate teaching and learning materials that links to poor performance. The results in this study show that the relationship between availability of teaching/ materials and poor academic performance is not statistically

significant. But, the model in Table 13 indicates that that the academic performance is negatively affected by inadequate teaching/learning materials in schools. Availability of teaching and learning materials for secondary schools such as text books, mathematics geometrical sets, coloured chalk, charts and mathematics models are important for teaching and learning process. Availability of such resources enhances the effectiveness of schools as these are basic things that can bring about good academic performance in the students.

The scarcity of these facilities in the study area made difficulties in teaching process in which it took a long time to deliver a simple concept that could be taught in a short time on a subject matter to students by teachers. On the other hand, students are forced to use rote learning instead of making them understand and recall easily what they see than what they just hear or were told. Inadequacy of teaching materials such as text books, mathematics geometrical sets, charts and mathematic models in these schools making learning difficulties and thus making them fail to cope up with their lessons with the end result being failing in their internal and national examinations.

The secondary education officer of Sumbawanga District Council reported that; the average students' book ratio for secondary schools in Sumbawanga District was 11: 1 in 2012. Thus, one book is shared with eleven students. On the other hand; Heads of secondary schools from the selected secondary schools reported that the students' books ratio as follows: Msanzi 30:1, Matai 5:1, Mpui 7:1 and Mzindakaya 20:1. The official government recommended students' books ratio should be at least 3:1 (URT, 2010). This is a factor contributing poor academic performance of students in Sumbawanga secondary schools. All secondary schools do not meet the officially recommended students' book ratio as indicated at district and from selected secondary schools levels in the study area.

Therefore, inadequate teaching and learning materials should be associated to poor academic performance of students in Sumbawanga secondary schools.

4.4.2 Availability of libraries in secondary schools and academic performance

The findings in this study show that libraries were a great problem in Sumbawanga. About 100.0% of respondents indicated that there were no libraries at their schools. Also DSEO of Sumbawanga District reported that no any well-equipped library exists in the district. Library forms one of the most important educational services and educational process functions in a world of books. It is an important facility that inculcates in the students' reading behaviors in order to have a wide knowledge. Students in rural areas have limited access to internet services, therefore, having Library facilities could help to improve their learning environment and eventually get better academic performances. The findings are in line with the study done by Kipkoech (2012) who observed that the availability and quality of textbooks in a secondary school library is an essential factor in teaching-learning process. This is strongly related to students' academic achievement in Sumbawanga District.

Ola (1990) observed that secondary school library in whatever form, has replaced the traditional method of 'chalk and talk' in imparting knowledge to students. A well-equipped library is a major facility which enhances good learning and achievement of high educational standards. The chief purpose of a school library is to make available the learning facilities to the students. These facilities include books, periodicals and other reproduced materials which are of interest and value.

Odulaja and Ogunwemimo (1989) observed that while the selection of a textbook has been adjudged to be of vital to academic achievement, it is sad to say that relevant textbooks are

not always available for teaching and learning activities. However, in Tanzania UNESCO Country Programming Document 2011 – 2015 shows that students book ratio at national level is currently 5:1 higher than that what is officially recommended of 3:1. This ratio reveals that; it is a factor contributing to the massive failure of students in national form four examinations results that has been observed in recent years.

District Secondary Education Officer (DSEO) of Sumbawanga District Council reported that students: book Ratio in Sumbawanga District secondary schools was 11: 1 in 2012. Students books ratio in various subject were as follows; Mathematics 1:4, Civics 1: 20, Chemistry 1:6, Physics 1: 5, Biology 1:2 and History 1:15, Geography 1:14, English 1:11 and Kiswahili 1: 11 respectively. Therefore, the average Student-Books Ratio (SBR) in Sumbawanga District was 1: 11 at the end of the year 2012 (DSEO, 2012).

This information reveals that about 90% of students' books ratio in Sumbawanga secondary schools is below the official recommended limits. Despite the efforts made by education stakeholders in providing textbooks to students in Sumbawanga secondary schools, still the students' books ratio for most of subjects taught are below standards. Only biology subject has students' book ratio of 1:2. That is two students can share 1 book of biology that meets the official recommended limit. Mathematics, physics and chemistry are closer to the recommended ratio for 1:4, 1:5 and 1:6 respectively. The subjects which show to be below the official recommended limit of students books ratio include; English, Kiswahili, Geography, History and Civics. It should be noted that most of these secondary schools do not have access of internet services. The study revealed that shortage of library rendered to inadequate reference and textbooks which are major inputs for students' academic performance in examinations especially those in rural day secondary schools in Sumbawanga District.

4.4.3 Influence of laboratory facilities to students' academic performance

A laboratory is a room or a building specially built for teaching by demonstration of theoretical phenomenon into practical terms. The effect of using laboratories in teaching and learning of science and other science related disciplines for students tend to make them understand and recall easily what they see than what they just hear or were told. Laboratory is essential to the teaching of sciences and the success of any science course is much dependent on the laboratory provision made for it.

The findings in this study shows that inadequate of laboratories in the study area was statistically significant thus causing poor academic performance at $P < 0.05$. It had a chance to influence poor academic performance. Table 7 indicates that 71.7% of the respondents reported that there was shortage of laboratories while only 28.3% responded that there were laboratories to their schools.

Table 7: School environment factors influencing poor academic performance

Factors Influencing poor academic performance	Responses	Teachers	Students	Parents
		(n = 36) Percentage	(n= 120) Percentage	(n=64) Percentage
Teaching /learning materials	Adequate	16.7	36	20.3
	Inadequate	83.3	64	79.7
Availability of laboratories	Adequate	33.3	28.3	18.8
	Inadequate	66.7	71.7	81.2
Availability of teachers	Adequate	25	23.3	15.6
	Inadequate	75	76.7	84.4
Library	Adequate	0	0	0
	Inadequate	100	100	100
Meal	Adequate	26.6	36.7	26.6
	Inadequate	73.4	63.3	73.4

The laboratories mentioned were merely selected science rooms were not standard science laboratories as such. The selected science rooms in the study area observed at Mpui and Matai secondary schools in which some science practices were conducted in these rooms. These rooms were too small to accommodate a big number of students for practical works. Physics, Chemistry and Biology laboratory materials and equipment were kept in the same room which had neither enough space for accommodating large numbers of students nor store and preparation rooms. Also they are not installed with water and gas system infrastructure. At Mzindakaya secondary schools, two science laboratories were at construction stages.

At Msanzi secondary school there were neither science laboratories nor science rooms existed in the place. Therefore, science sessions were taught in class rooms. Few science materials and equipment's were taken in class rooms for demonstration by a teacher only where it is necessary. When the researcher went to Msanzi, he found, the teacher who was teaching form two students' physics session in a classroom. He questioned the reasons for the teacher's demonstrating Archimedes principles in the classroom instead of doing it in a laboratory? He responded that: "You know, there is no any laboratory infrastructure existing at our school since it was opened more than eight years ago. He went further by saying that all science national form four examinations are alternative to practical instead of being performed practically".

Data from Sumbawanga District secondary education office revealed that; only six laboratories (6.7%) were available out of 90 laboratories that were needed in the district. Thus, the district had a shortage of about 84 (93.3%) laboratories. From this information, it is very difficult to maintain and arouse the interests of students in science subjects without involving laboratory works. For example, in the 2012 national form four

examinations results indicated that; the candidates who sat for physics were 60 (13%), chemistry were 142 (30.8%) and 85.8% for biology the subject that was compulsory for all students from the study area. But for the case of Sumbawanga secondary schools the intervention strategies for constructing laboratories has remained a rhetoric story for a long time. It contradicts with Yadar (2001) who observed that no course in Science can be considered as complete without including some practical work to it. The practical work ought to be carried out by individuals either in Science laboratories or in classes.

At school level, practical work is even more important because of the fact that students learn by doing foster learning and arouse the interest of a subject. UNESCO (2008) clarifies that practical work forms an important feature in any Science Course. Practical subjects allow students to learn from more by doing than what is typical in academic subjects. Hence, the importance of laboratories and other laboratory materials for practical work is so evident that it greatly affects students' academic performance in schools.

4.4.4 Influence of Meals provision and academic performance in secondary schools

The findings in the study area show that about 73.4% of respondents said that there had neither breakfast nor lunch provision services for their students. It was supported by head of schools in the study area insisting that government has no programs of providing foods to day secondary schools except for the secondary schools which have advanced level secondary education programs such as Matai secondary school. Advanced level students were boarded in school dormitories and are eligible of receiving meals services due to capitation grants from central government budget. The study reveals that lack of food and breakfast provision was among the factors for poor academic performance to students in Sumbawanga District. This implies that teaching hungry students who cannot pay attention to their instructors and gain knowledge, results in poor academic performance.

This was consequently, made them attain lower scores on their internal tests and examinations achievement. It has also been learned that skipping breakfast can adversely affect problem-solving tasks such as mathematics grades which require problem solving skills.

This study is on line with Kaklamanou *et al.* (2012) who stated that students need fuel to actually make them study well and be attentive and manage the responsibility of class. It also complements to Ross (2010) who observed that offering students the right food choices and helping them develop positive health eating habits will support the optimal functioning of their brains. Eating breakfast helps students to eliminate or reduce stomach pain, headache, muscle tension, and fatigue, factors that lead to an interference with learning.

The study reveals that lack of food and breakfast provision was among the factors for poor academic performance to students in Sumbawanga District. This was supported by all the heads of schools and District Education Officer who said that students were not provided with lunch and breakfast at schools. This implies that teaching hungry children who cannot pay attention to their instructors and gain knowledge results to poor academic performance. Consequently, they attain lower scores on standardized achievement tests.

4.4.5 Availability of qualified teachers in secondary schools on academic performance

Teachers and students were asked to respond on the availability of enough and qualified teachers. The study findings are summarized on Table 7. The findings revealed that the majority 75% of teachers and 76.7% of students reported that there were no enough and

qualified teachers in their school while 25% of teachers respondents and 23.3% of students reported that there were enough and qualified teachers in their schools.

However the availability of teachers in the selected secondary schools were as follows as shown in Table 8; starting with Msanzi secondary school there were 13 teachers, in which 11 were males teachers whose qualifications were; one degree holder in sciences, 2 degree holders in arts, 2 Diploma holders in sciences, 4 diploma holders in arts and 2 untrained teachers. Also 2 Diploma holders in Arts were females. The deficit of about 40% teachers at this school was reported by the head of school. He further denounced high deficit of science teachers especially Biology teachers that there was none qualified biology teacher who was posted there by the employer. In order to fill this gap, the head of school took initiatives to hire two untrained teachers at least to reduce the burden. The findings further noted that; the teacher students' ratio (TSR) at Msanzi secondary school was 1:40.

Matai secondary school had two levels of secondary education. Ordinary level ('O' level) and Advanced level ('A' level) secondary school education programs operated in place. 24 teachers were available, in which 19 were males whose qualifications were; 3 degree holders in sciences, 12 degree holders in arts and 4 diploma holders in arts. Also 5 teachers were females; in which 4 of them were Degree holders and 1 Diploma holder in Arts. The teacher students' ratio was 1:25. It was reported that there was the deficit of about 31% of teachers at this school.

Mzindakaya secondary school had an ordinary level ('O' level) education programmes. The findings from this school revealed that; 13 (44.83%) teachers were available, in which 9 teachers were males whose qualifications were; 2 degree holders in sciences, and 5 degree holders in Arts. In addition to that, one teacher was diploma holder in sciences and

another one diploma holder in arts respectively. Also 4 teachers were females; in which 2 of them were Degree and 2 Diploma holders in arts respectively. The teacher students' ratio was noted to be 1:45 at this school. It was reported that; the deficit of teachers prevailing at this school was about 55%.

The findings from this school revealed that 16 (45.7%) teachers were available at Mpu Secondary school. Out of this number; 12 teachers were males whose qualifications were; 3 teacher's degree holders in sciences, and 4 teachers, degree holders in Arts. In addition to that, 2 teachers were diploma holders in sciences and other 3 teachers were diploma holders in arts respectively. Also 4 teachers were females; in which 2 of them were Degree and 2 Diploma holders in arts respectively. Untrained teachers observed to be zero at this school, but teacher's deficit was noted to be 54.3%. It was also found out that the teacher students' ratio to be 1: 44.

On another hand, the District Secondary Education Officer reported that the District Council had a need of 507 qualified teachers in the year of 2011/12. But, only 279 (55%) teachers were available in secondary schools found in Sumbawanga District. The deficit of teachers in the district was about 228 (45%) of qualified teachers. It was also reported that 58 (11.44%) of untrained teachers were hired to supplement teachers' deficit prevailing in the district. Out of 58 teachers, only 11 (19%) of untrained teachers were females and 47 (81%) were male teachers. The teacher student's ratio in the district was 1:36.

Furthermore, the district had 253 trained male teachers and 26 female teachers. About 8 male teachers were degree holders in sciences and 32 were degree holders in arts. Also, 37 and 176 male teachers were diploma holders in sciences and arts respectively. Nevertheless, out of 26 trained female teachers, 6 teachers were degree holders in arts;

meanwhile one was diploma holder in sciences and 19 were diploma holders in arts. Therefore, it was noted that about 14% were degree holders, 69% of them were Diploma holders and 17% were untrained teachers. The number of untrained teachers out passes the number of trained degree holders. This implies that students were taught with teachers with low teaching skills that had influenced students' poor academic performances. However, URT (2010) SEDP II projections show that students to teacher ratio of 20 :1 is a target benchmark for secondary school by 2015 and teachers with degrees by 50 % to all degree and diploma holders.

It should be noted that a teacher should be effectively involved in learning process in order to transfer knowledge and facts to learners for good performances in any examinations. Also, teachers have their basic needs and favorable working environments. When teachers were asked to account for their working environments, about 82.2% of them reported to work in unpleasant working environment in the study area. Some teachers who interviewed complained on poor water infrastructure, inadequate houses accommodation at their schools premises and low payment of their salaries on payrolls. Also they complained that; they were facing transportation and Bank services constrains when moving to Sumbawanga to withdraw their salaries. It increases unnecessary subsistence costs which are not covered by their employer.

For example, when heads of secondary schools were asked to give their reflection on the deficits of teachers' houses accommodation, they reported the deficit as follows: About 65% at Msanzi secondary school, 70% at Mpui secondary school, finally about 75% at Mzindakaya and Matai secondary schools. It can be observed that; no significant differences in percentages in their deficit from the selected secondary schools in the study

area. On discussion with one graduate teacher at Msanzi secondary school who had house accommodation complained on useless of his laptop due to lack of electricity. He said that: *“Look at these houses which do not have access of electrical energy made my computer being useless in this era of globalization for high development of sciences and technology. He continued to express his feelings by saying that the monthly salary that I get is not adequate to purchase monthly basic needs and have a surplus to purchase a generator which is also very costly to run by filing fuel which is at high price in rural areas. The lack of electricity service gives a hard time for lesson preparation and in marking students ‘exercises or tests in the night.’”*

These factors contribute to reduced levels of effort, and lower effectiveness in the classroom, low morale, and reduced job satisfaction. Several consequences could be observed including; higher absenteeism, poor cooperation among teachers themselves and low acceptance of responsibility might eventually influence students’ poor academic performance. Furthermore, low wages and poor working conditions for teachers affect their abilities and motivation to deliver quality education. It complements with Corcoran *et al.* (1988) study who found out that, where working conditions are good, they result in enthusiasm, high morale, cooperation, and acceptance of responsibility.

Improving teachers’ working environment and increase job satisfaction could have been shown to have positive influence on students’ academic achievement. They play a crucial role for translating policy into action and principles based on practice during interaction with the students. The determinants of students’ poor academic performance due to school environment were not caused by only inadequacy of those listed in Table 7, but also those listed in Appendix 2.

Table 8: Availability of teachers by qualification and sex in the study area and the district

Name of secondary School	Degree in science		Degree in Arts		Diploma in science		Diploma in Arts		Others		Total
	Me	Fe	Me	Fe	Me	Fe	Me	Fe	Me	Fe	
Availability of teachers by qualification and sex in the study area.											
Msanzi	1	0	2	0	2	0	4	2	2	0	13
Matai	3	0	12	4	0	0	4	1	0	0	24
Mzindakaya	2	0	5	2	1	0	1	2	0	0	13
Mpui	3	0	4	1	2	0	3	3	0	0	16
Availability of teachers by qualification and sex in the District											
S'wanga	8	0	32	6	37	1	176	19	47	11	337

Source:District Secondary Education Office – Sumbawanga 2011

Me = male, Fe = female and S'wanga = Sumbawanga

4.5 Academic Performance of Secondary School Students

4.5.1 Academic performance of students in selected secondary schools

During this survey the secondary data based on academic performance of secondary school students were collected from four secondary schools. Information on grade points sampled students scored in terminal examination of the year 2012. From form, III and form IV obtained from progress books of student available in all schools. The pass grade coded 1 if a student scores average grade (“A”, “B” and “C”) and the fail grades coded 0 if a student scores grade (“D” and F). Further `Grade A= 81-100, B=61 – 80, C = 41 – 60, D= 21 – 40 and F= 0 – 20.

According to this study, Table 9 indicates that about 32.4% of form three students scored grade C, 59.3 scored D and 7.8% scored F. Also, about 17.9% students scored grade C, 62.5% scored D and 19.6% scored F. Therefore, about 67.1% of form three students failed

whereas about 32.9% passed their internal examinations. The form IV students' average score showed that only 17.9% passed and 82.1% failed their internal examinations. The pass rate of form three students was better than that of form four students. On the other hand, students from both classes performed poorly because the rate of poor academic performance was above 30% of which is the national target for poor academic performance. Also, the average results indicated that no any student who scored an average of grade A or B from both classes in the selected secondary schools in the study area.

Furthermore, the results in Table 9 showed that about 23.3% of male respondents scored grade C, 28.3% scored D and 4.2% scored grade F. Also, about 3.3% of female respondents scored grade C, 32.5% scored grade D and 8.3% grade F. Therefore, about 23.3% of male respondents passed and 32.5% failed their internal examinations. However, about 3.34% of female respondents passed and 40.8% failed their internal examinations. The internal examinations results indicated that, male students' academic performance was better than that of female students. It predicts that, male students have higher chances to perform better than females in their National form four examinations.

Table 9: Academic performance for Form III and IV students' continuous assessments 2012

Class	Average grade distributions					Total
	A	B	C	D	F	
Form III (n)%	0	0	(21)32.4	(38)59.3	(5)7.8	(64)100
Form IV (n)%	0	0	(10)17.9	(35)62.5	(11)19.6	(56)100
Sex of respondents and their performance						
Male (n)%	0	0	(28)23.33	(34)28.3	(5)4.2	(67)55.83
Female (n)%	0	0	(4)3.3	(39)32.5	(10)8.3	(53)44.17
Total	0	0	(32)26.7	(73)60.8	(15)12.5	(120)100

4.5.2 Performance trends by school from national form four examinations results

Table 10 gives a summary of academic performance trends of students by school from national form four examinations results in five years from 2008 to 2012. It classifies the four secondary schools into five scoring ranks namely division one to four and division zero. The students' scores of Msanzi secondary schools shows that; out of 669 candidates who sat for CSEE for five year only division one was only one candidate 0.15%, division two 3 candidates 0.45%, division three (21) 3.14%, division four (214) 31.99% and division zero was (430) 64.27%. Matai secondary school students score reveals that from 562 candidates; division one was zero, division two it was (7) 1.25%, division three (33) 5.87%), division four (272) 48.34% and division zero was (250) 44.48%.

Mpui secondary school students score reveals that from 403 candidates; division one observed to be one 0.26%, division two was (14)3.47%, division three (30)7.44%), division four (178) 44.17% and division zero was (180) 44.67%. Mzindakaya secondary school students score indicates that from 593 candidates; division one it was observed to be zero, division two it was (7) 1.18%, division three (34) 5.73%), division four (274) 46.2% and division zero was (278)46.20%. While the overall results in the four secondary schools for five years from the total of 2227 candidates; it observed that two 0.1% candidates scored division one, (31) 1.4% scored division two, (118) 5.3% scored division three, (938) 42.1% scored division four and (1138) 51.1% failed their examinations by scoring division zero. This implies that more than a half of all candidates sat for five year totally failed their national form four examinations.

Table 10: Performance trends by school from CSEE results for five years (2008 – 2012).

Name of sec. school	Year	Division I	Division II	Division III	Division IV	Division 0	Total
Msanzi	2008	0	1	4	33	28	66
	2009	0	0	5	67	16	88
	2010	0	2	10	45	40	107
	2011	0	1	2	36	28	67
	2012	1	0	0	33	68	102
Matai	2008	0	6	10	44	26	86
	2009	0	1	5	86	36	128
	2010	0	0	12	74	56	142
	2011	0	0	3	31	70	104
	2012	0	0	3	37	62	102
Mpui	2008	1	4	12	27	0	44
	2009	0	6	12	43	6	67
	2010	0	3	4	45	48	80
	2011	0	1	2	35	32	70
	2012	0	0	0	28	94	122
Mzindakaya	2008	0	6	10	44	26	86
	2009	0	1	5	86	36	128
	2010	0	0	12	74	56	142
	2011	0	0	3	31	70	104
	2012	0	0	4	39	90	133

Moreover, Table 11 shows that Msanzi secondary school had the highest number of 669 candidates to all these four selected secondary schools but, their academic performance revealed to be the lowest of all selected secondary schools throughout five years. On the other hand, Mpui secondary school had the lowest number of 403 candidates who sat for CSEE, but had the highest number of students whose academic performance was best to all selected secondary schools in the study area. Furthermore, Matai and Mzindakaya

secondary schools scores; division one was observed to be 0 whereas Msanzi and Mpui secondary schools division one observed to be 1 for each in five years between 2008-12. However, Mpui secondary school was the solely secondary school that revealed their academic performance of division zero observed to be 0 in 2008. Twenty three 3.4% students from Msanzi secondary school were selected to join advanced studies, in which 22 (95.7%) were boys and only one (4.4%) was a girl.

Table 11: Summary of academic performance in five years by school from CSEE results of 2008 - 2012

Name of sec. School	Division I (n)%	Division II (n)%	Division III (n)%	Division IV (n)%	Division 0 (n)%	Total (n)%
Msanzi	(1)0.15	(3)0.45	(21)3.14	(214)31.99	(430)64.27	(669)100
Matai	0	(7)1.25	(33)5.87	(272)48.34	(250)44.48	(562)100
Mpui	(1)0.26	(14)3.47	(30) 7.44	(178)44.17	(180)44.67	(403)100
Mzindakaya	0	(7)1.18	(34)5.73	(274)46.20	(278)46.20	(593)100
Total	(2)0.09	(31)1.39	(118)5.31	(938)42.12	(1138)51.1	(2227)100

4.5.3 Students selected to join further studies from 2008 – 2012

The report from the study area indicated that 6.76% of the students from Matai secondary school were selected to join advanced studies for five years from 2008 -12, in which 30 (80%) students were boys and only eight (20%) students were girls. Also 28 (4.7%) students from Mzindakaya secondary school were selected to join advanced studies in which 20 (71%) were male students and 8 (29%) were female students. Furthermore, 40 (9.9%) students from Mpui secondary school were selected to join advanced studies; whereas 30 (75%) were males and 10 (25%) were females. On top of that about 23 (3.4%) from Msanzi secondary school were selected to join with advanced studies, in which about 22 (95.7%) were males and only one female candidate (4.3%) was selected to join with advanced studies.

These schools were ranked according to number of students who selected to join advanced studies from high to low as follows: Mpui, Matai, Mzindakaya and Msanzi secondary schools respectively. It can be seen that the performance of the students was inversely proportional to the number of candidates sat for examinations. However, females were the most disadvantaged to male candidates in the study area. The information in Table 12 indicated that only 129 (5.8%) out of 2227 students were selected, in which 102 (79%) were males whereas, 27 (21%) were female students from the four secondary schools who sat national form four examinations for five years from 2008 to 2012 consecutively. It shows the expansion of secondary schools is not relative to academic performance, because only a small proportion of secondary school students go on to higher education.

The percentage of students pass rate is very low compared to the target set by Secondary Educational Development Programme (SEDP I and II) through NSGRP I of 70%. Moreover, out of 129 students about four-fifth were males and one-fifth were females who were selected to join advanced studies. However, students' scores who sat certificate secondary examinations education for 2012 were observed to be the lowest of all, whereas in 2008 their academic performance observed to be the highest to all in five years in the study area. The prospective number of students that expected to enter in the competition of labour market is at low level of consideration.

Table 12: Candidates selected to join advanced studies in the study area from 2008 - 2012

Name of secondary school	Year										Total	
	2008		2009		2010		2011		2012		Me (n) %	Fe (n) %
	Me	Fe										
	(n)	(n)	(n)	(n)								
%	%	%	%	%	%	%	%	%	%	%	%	
Msanzi	(4)	(1)	(2)	(0)	(12)	(0)	(3)	(0)	(1)	(0)	(22)	(1)
	6.1	1.5	2.3	0	12.6	0	4.4	0	1.0	0	95.7	4.3
Matai	(10)	(2)	(8)	(4)	(6)	(2)	(3)	(0)	(3)	(0)	(30)	(8)
	11.6	2.3	6.3	3.1	4.2	1.4	2.9	0	2.9	0	79	21
Mzindak aya	(5)	(3)	(4)	(0)	(7)	(2)	(2)	(1)	(2)	(2)	(20)	(8)
	7.8	4.7	7.3	0	7	2	1.6	0.8	1.5	1.5	71.4	28.6
Mpui	(9)	(3)	(13)	(5)	(5)	(2)	(3)	(0)	(0)	(0)	(30)	(10)
	20.4	6.8	19.4	7.5	6.3	2.5	4.3	0	0	0	75	25

4.6 Binary Logistic Regression Model

In Table 13, the following variables examined were statistically significant influencing poor academic performance of secondary school students such as income of parents at; $p < 0.05$, walking distance $p < 0.05$ and availability of laboratories $p < 0.01$. Being among the home based factors, low income of the parent and long walking distance to school observed to increase the chance of poor academic performance of a secondary school student. Lack of laboratories in secondary schools formed the school environmental factor identified to significantly reduce students' academic performance.

Table 13: Binary Logistic Regression Model analysis

Factors	B	S.E	P-values	Expected β
Truancy	.819	1.341	.542	2.268
Competence in English language	-1.321	1.179	.263	.267
Income of parents	-2.598	1.252	.038*	.074
Education of parents	.177	1.101	.872	1.194
Walking distance	2.009	.954	.035*	7.455
Teaching and learning materials	-.043	.810	.958	.958
Availability of laboratories	-4.040	1.550	.009**	.018
Availability of Libraries	1.640	1.823	.368	5.157
Availability of meals at school	-.122	1.462	.934	.885
Availability of teachers	-.375	1.438	.794	.687

4.7 Summary of the Chapter

The study sought to investigate the factors influencing poor academic performance of secondary schools students in Sumbawanga District, Tanzania. The finding reveals the truancy and incompetence of English language of some students reduces the efficiency in their academic works. Also, the poverty of the family and long walking distances from home to school of some students have influence on students' academic performance. Finally, inadequate teachers, teachers' houses, libraries, teaching/learning materials, science laboratories, dormitories or hostels and lack of meals provision to students had negative impacts on the students' academic performance in the district.

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The main objective of this study was to assess factors are influencing poor academic performance of students in Sumbawanga District, Tanzania. This study found that the factors hamper students 'academic performance includes; truancy among the students, incompetence of English language among students as a language of instruction. The home based factors such as low income of parents and long walking distance from home to school also influence poor academic performance of students in most secondary schools in the study area.

These were among of factors that were statistically significant to influence poor academic performance of students in Sumbawanga District. Finally, the study identified some factors rooted from the school environment such as inadequate of teaching and learning facilities like text books and reference books, desks and chairs, inadequate hostels or dormitories, inadequate provision of meals to students, shortage of qualified teachers and shortage of well-equipped science laboratories. Shortage of science laboratories was statistically significant to affect negatively to academic performance. This causes poor academic performance of students in science subjects in most secondary schools of Sumbawanga District.

5.2 Recommendations

From the findings in this study, the following recommendations are put forward:

- i. The government, Sumbawanga District Council in collaboration with parents and other educational stakeholders should constructs dormitories or hostels to

accommodate students in order to minimize their walking distances and create conducive environment of learning process in schools.

- ii. Sumbawanga District Council, parents and other educational stakeholders should put forward strategies of constructing laboratory and combating shortage of well-stocked laboratories to district secondary schools.
- iii. Parents, guardians, Ministry of Education and Vocational Training, Sumbawanga District Council and other educational stakeholders such as CBO's, NGO's should provide learning materials to schools such as text books, reference books, chalks, chairs, desks and other basic needs required by a student. This is because most (90%) of these schools are new and have inadequate infrastructures, therefore, they need more support from all educational stakeholders.
- iv. Education is one of the most important means of empowering the society with the knowledge and skills necessary to involve fully in the development process. It is recommended that in order to bring development to the family, community, society and country at large, the parents should be sensitized to invest in education. This is the most effective way to stimulate productivity and eliminate ignorance poverty, hunger, and diseases in the society.
- v. The government should enhance public awareness and consensus on the socio-economic advantages of education through advocacy in the study area and national wide. The Sumbawanga District should campaign for public awareness in education through meetings, conferences, publications, media especially radio which are almost available in many family even in rural areas. This may reduce the

truancy in which truants involve themselves in agricultural activities, casual labour and involvement in criminal groups of some students in order to enhance competition in academic works.

- vi. The government should increase the subsidies scheme to peasants of Sumbawanga District in order to alleviate poverty in rural areas. This is due to the fact that about 88% of the parents are peasants whose income was statistically significant low. Therefore, the increase of subsidies improved seeds, fertilizers, insecticides, pesticides and on other agricultural implements that will enable the parents to increase production from their farms which when the produces sold will eventually increase the purchasing power of scholastic requirement.
- vii. Finally it is highly recommended that a similar study be conducted to investigate factors affecting academic achievement particularly in primary education. This may allow comparison of the result of studies between different levels of education in Sumbawanga District.

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APPENDICES

Appendix 1: Academic performance trend by school from NECTA results for division I to III and division (IV & 0) between 2008 - 2012

Name of school	Year	Division I-III	%	Division IV & 0	%
Msanzi	2008	5	07.6	61	92.4
	2009	5	05.7	83	94.3
	2010	12	11.2	85	88.8
	2011	3	4.5	64	95.5
	2012	1	0.01	101	99.99
Matai	2008	16	18.6	70	81.4
	2009	6	4.7	122	95.3
	2010	12	8.5	130	91.5
	2011	3	2.88	101	97.12
	2012	3	2.9	99	97.1
Mpu	2008	17	38.64	27	61.36
	2009	18	26.9	49	73.1
	2010	7	7	93	93
	2011	3	4.3	67	95.7
	2012	0	0	122	100
Mzindakaya	2008	16	18.6	70	81.4
	2009	6	4.7	122	95.3
	2010	12	8.45	130	91.55
	2011	3	2.9	101	97.1
	2012	4	3.	129	97

Appendix 2: Availability of school facilities in Sumbawanga District 2012

Facilities/ Items	Required	Available(n)	Percentage (%)	Deficit (n)	Percentage (%)
Administration blocks	30	21	70	9	30
Classrooms	509	298	58.55	211	41.45
Hostels	403	31	7.69	372	92.31
Laboratories	90	6	6.67	84	93.33
Teachers' houses	576	131	22.74	445	77.26
Teachers' latrines	417	57	13.67	360	86.33
Students' latrines	769	410	12.44	359	87.56
Kitchens	36	7	19.45	29	80.55
Libraries	30	0	0	30	100
Dining halls	35	5	17.14	29	82.86
Special rooms	30	0	0	30	100
Desks	19360	8923	46	10437	54
Chairs of students	19360	8640	44.6	10720	55.4
Teachers' tables	576	251	43.58	325	56.42
Beds	19360	494	2.55	18866	97.45
Cupboards	420	63	15	357	85
Shelves	137	7	5.1	130	94.9
Safes	30	28	93.33	2	6.67

Source: Sumbawanga District Secondary Education office

Appendix 3:A Questionnaire for Students

Dear respondent, I am NyandwiMelack David, M. A Rural Development Student at Sokoine University College doing a research on “Determinants of students’ Academic Performance in Secondary Schools in Sumbawanga District, Tanzania”. Your contribution is very important. I request you to answer the following questions. All the information will remain confidential and will be used for academic purposes of this research only.

Serial Number.....

A: Background Information

1. District.....
2. Ward.....
3. Village.....
4. School at which the student is studying.....
5. Sex of the respondent..... (1=male, 2= female)
6. Age of the respondent
7. Form in which the student is studying.....(1= form III,2=Form IV)
8. Mean score awarded.....
9. Grade awarded..... (1=A, 2=B, 3=C, 4=D, 5=F)
10. Rating the average score whether pass or fail..... (1=Pass, 2=Fail)

B. Students Related Factors Influencing Academic Performance

What are the school students related factors influencing poor academic performance

- i.....
- ii.....
- iii.....

What is the distance from home to school?

How many hours do you spend to go to school?

Are you competent at reading in English language? (1=Yes, 2=No)

Are you competent at writing in English language? (1=Yes, 2=No)

Are you competent at speaking English language? (1=Yes, 2=No)

What was your score of English language in your last terminal examination

Score in marks.....and grade..... (grades A, B, C, D, and F)

Is there a problem of truancy in your school?.....1=Yes, 2=No

What causes truancy at your school?

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

C. Home based factors influencing poor academic performance

9. What is your parents'/guardians' occupation?

i .peasants [], ii. Business [], iii. Civil servant [], iv. Others (specify).....

10. Are you given homework?1=Yes [], 2= No []

11. Do you finish it in time? 1=Yes [], 2= No []

12. If not finished in time, why?

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

13. What activities do you do after class sessions at home?

i.....
ii.....
iii.....
iv.....

Do your parents assign you domestic chores after school sessions by the parents?

i. Yes [], ii. No []

What is the level of education of your parents?

i. Non-formal education [], ii. Primary education [], iii. Secondary education [], iv. Tertiary education [].

School environment related factors

From your experience give your comments on the availability of the following school facilities and services that may have influenced to students' poor academic performance at your school

Teaching and learning materials (1=Adequate[], 2=inadequate [])

Laboratories...(1=Adequate[], 2=inadequate [])

Teacher.....(1=Adequate[], 2=inadequate [])

Library (1=Adequate[], 2=inadequate [])

Meals(1=Adequate[], 2=inadequate [])

Appendix 4: A Questionnaire for Parents/Guardians

Dear respondent, I am NyandwiMelack David, a M. A. Rural Development Student at Sokoine University of Agriculture College doing a research on the study of the Determinants of Students' Academic Performance in Secondary Schools in Sumbawanga District, Tanzania. Your contribution is very important in this study. I request you to answer the following questions. All the information will remain confidential and will be used for academic purposes of this research only.

A: Background information of the respondent

1. District..... Ward.....Name of village.....
2. Name of the school.....
3. Sex of respondent (parents).....
4. Marital status.....
5. Number of year since date of birth.....
6. Occupation of parent/guardian.....
7. Education level..... (1=Informal, 2=Primary, 3=Secondary, 4=Tertiary)
8. Main source of income.....
9. (a). Do you provide your child with school facilities (fees, uniforms etc.)?
 1. Yes [], 2. No []

(b). If the answer is no, give reasons.....
10. Do you check your child's school work to determine his/her school progress?
 1. Yes [], 2. No []
11. How often do you visit your child's school for his/her attendance and general schooling (put a tick) i. very often [], ii. Few times [], iii. Not at all/ never []
12. How far is the school located from your home?
 - i. very far above 5 kilometres [],

ii. Very far between (3-4 km) [],

iii. Near (below 3 kilometres) []

15. What type of transport does your child use when going to school? (put tick)

i. walks [], ii. Uses bicycle [], iii. Uses motorcycle [], iv. Uses buses []

16. Are you single parent? i. Yes [], ii. No []

17. How does your marital status influence your child's school learning? (Give comments).

.....

.....

.....

.....

.....

.....

.....

Appendix 5: A Questionnaire for Teachers

Dear respondent, I am NyandwiMelack David, a M. A. Rural Development Student at Sokoine University College doing a research on Determinants of students' Academic Performance in Secondary Schools in Sumbawanga District, Tanzania.

Your contribution is very important in this study. I request you to answer the following questions. All the information will remain confidential and will be used for academic purposes of this research only.

Questionnaire number.....

1. District.....

2. Ward.....

3. Name of secondary school.....

4. Sex of a respondent.....

5. Marital status of a respondent....(1=married, 2=Single, 3=Divorced, 4=Widow)

6. Age of a respondent (teacher) in years.....

7. What is your highest level of education?

i. Diploma [], graduate [], iii. Postgraduate []

8. What subject(s) do you teach?

..... and

B. Students related factors

9. How are your class sizes? i. Very big (above50) [], ii. Big (between 40-50) [],

iii. Moderate (between 30-40) [],iv. Small (below 30)[].

Comment on your students' attendance?

11. What might be the causes of students' absenteeism? Tick where appropriately

i. illness [],

ii.unable to pay school fees and scholastic requirements(Low parents' income) [

], iii. Gangstersinfluences [], iv. Others (mention).....

12. Give comments on students' competency at using English language during learning process?

- i. yes, many are very competent [].
- ii. They are competent []
- iii. Moderately competent [],
- iv. a few are competent [].

13. What are the students' related factors (home based factors) influencing academic performance

- i.
- ii.
- iii.

C. Parents related factors (home based factors) influencing academic performance

8. What are the parents related factors (home based factors) influencing academic performance

- i.
- ii.
- iii.
- iv.

9. School environment related factors influencing academic performance?

- i. Availability of Teaching and learning materials (1=Adequate [], 2=inadequate [])
- ii. Availability of Laboratories...(1=Adequate [], 2=inadequate [])
- iii. Availability of Teacher.....(1=Adequate [], 2=inadequate [])
- iv. Availability of Library (1=Adequate [], 2=inadequate [])
- v. Availability of Meals(1=Adequate [], 2=inadequate [])

Appendix 6: A Checklist of Items for Discussion with Heads of schools:

Dear respondent, I NyandwiMelack David, a M. A. Rural Development Student at Sokoine University College doing a research on a study of determinants of students' Academic Performance in Secondary Schools in Sumbawanga District, Tanzania. Your contribution is very important in this study. I request you to answer the following questions. All the information will remain confidential and will be used for academic purposes of this research only.

1. School....., Reg. No.....
2. No. of Students..... (1)Boys..... (2) Girls.....) in 2012
3. Are teachers motivated because to students' performance? (1) Yes, [] (2) No [].
4. How is the community perception towards education in the area (1) Good [](2) Poor []
5. What is the range of most students' distances from home to school?
6. The dominant means of students transportation to and from school
 - (i) On foot, [] (i). By bicycle []; (iii) by motor vehicle [];
7. How was teacher-Student Ratio (TSR) in 2012
8. What was the Book-Student Ratio (BSR) in 2012.....
9. What causes more students to joining your school?
 - (1) Low School fees (2) High Pass rate, [] (3) Others [] (specify)
10. What is the response of Parents to school issues when asked for help?
 - (1) Positive [], (2) Negative []
11. Does school provide food to its students (1) Yes [], (2) No, []
13. Do all teachers have access of house accommodation at the school premises?
 - (i) Yes [], (ii) No [] (iii) Undecided
14. If not from question (13), what is the rate of shortage of teachers' house accommodation at your school?

15. Please! State the availability of the following facilities at your school?

a) Does your school have a chemistry laboratory? i. Yes [], ii. No [];

b) Does your school have a Physics laboratory? i. Yes [], ii. No [];

c) Does your school have a Biology laboratory i. Yes [], ii. No [];

16. a) Are science subjects practical's done at your school? 1. Yes [], 2. No []

b) If no, why?

17. a) Does your school have a library? 1. Yes [], 2. No []

b) If yes, does it have enough facilities such as:

(i) Books 1. Yes [], 2. No []

(ii). Tables and chairs 1. Yes [], 2. No []

Do your students get meals at school? 1. Yes [], 2. No []

a) Do you have enough teachers for every subject per stream?

b) Which subjects don't you have enough teachers?

i..... ii. iii.

iv. v. vi.

20. Does the school administration have a culture of providing monthly test for every subject?

(i), Yes[], (ii) , No []

21. What was the academic performance of previous students for Form IV since 2008-2011 at your school?

Table 1: Form Four Results Between 2008 – 2011

Year	Division- I		Division- II		Division- III		Division- IV		Division- 0		Total
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2008											
2009											
2010											
2011											
2012											

22. What was the number of students selected to join form five from your school between 2008 to2011.

Table 2: Students selected to join advanced studies

Year	Year 2008		Year 2009		Year 2010		Year 2011	
Candidates	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Quantity								
Total								

22. What factors influenced the kind of academic performance of students at your school as shown in Table 1 above?

- i.....
- ii.....

23. What are your suggestions for improving academic performance in secondary schools?

- i
- ii

Appendix 7: A Checklist of Items for Discussion with District Education

Management

Dear respondent, I am Nyandwi Melack David, a M. A. Rural Development Student at Sokoine University College doing a research on Determinants of students' Academic Performance in Secondary Schools in Sumbawanga District, Tanzania. Your contribution is very important in this study. I request you to answer the following questions. All the information will remain confidential and will be used for academic purposes of this research only.

Teacher-Student Ratio (TSR) at the district level between 2008 – 2011

Year	2008	2009	2010	2011
teacher-Student Ratio				

The Book-Student Ratio (BSR) at the district level between 2008 – 2011

Year	2008	2009	2010	2011
Book-Student Ratio				

3. Does the district management have a culture of rewarding teachers for better performance of students basing on the national form four examinations results? i. YES []; ii. NO [].

4. Does the district management have a culture of rewarding students for better performance from National basing on the four Examinations results? i. YES []; ii. NO []

5. How many schools are well equipped in terms of science laboratories in your district as from 2008- 2011?

Year	2008	2009	2010	2011
Availability of Laboratories (%)				
Number of schools with laboratories				

6. How is the general situation of academic performance in form 4 national examinations in your district? Put a tick!

- a). Very good [] b). Good []
 c) Moderate [], d) Poor []

7. If it is poor, why?

- i)
- ii)
- iii).....
-
-

8. What is your suggestion for improving academic performance in secondary schools?

- i.....
- ii.....
- iii.....