

**THE DYANAMICS OF GENERATING AND MANAGING  
EDUCATIONAL RESOURCES IN SWAZILAND SELECTED  
SECONDARY SCHOOLS**

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**Doctor of Philosophy  
Educational Leadership, Management and Policy  
School of Education**

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2017**

## **SUPERVISOR'S AUTHORISATION**

As the candidate's Supervisor, I agree to the submission of this thesis.

Prof. Vitallis Chikoko

**Signed:** \_\_\_\_\_

**Date:** \_\_\_\_\_

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18 June 2015

Mrs Doris N Myeni 214584923  
School of Education  
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Dear Mrs Myeni

Protocol reference number: HSS/0493/015D

Project title: The dynamics of generating and managing educational resources in Swaziland secondary schools

## Full Approval – Expedited Application

In response to your application received on 18 May 2015, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

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I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shamila Naidoo  
On behalf of Dr Shenuka Singh (Chair)  
Humanities & Social Sciences Research Ethics Committee

/pm

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## **DEDICATION**

This research work is dedicated to my Master Jesus Christ, from whom all good things come. Dedication also goes to my late parents, Reverend Richard M. Langwenya and Mrs. Vinah P. Langwenya for their strong character, being disciplinarians. They taught us generosity, forgiveness, a passion to study the Bible and taught us how to appreciate the importance of individuality. They were my role models, mentors, hard workers, encouragement, dedicated in serving the Lord and always supportive in my endeavours. May their souls rest in peace, wonderful sweet parents.

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The Head Teachers and Heads of Departments who allowed me access to their schools and agreed to complete the questionnaire and attended interviews while I was doing my research. The voluminous data I gathered was largely as a result of their participation and willingness to be part of this study. To all those and several others unnamed, I say: I owe it all to you. This is your accomplishment, as well.

My colleagues and students, whom I taught between 1995 and 2012, in return these boosted me to be zealous, have a positive self concept and a high self-esteem.

## **ABSTRACT**

In this study I investigated the dynamics of generating and managing educational resources in Swaziland secondary schools. The need for this study arose out of my realisation of a knowledge gap namely the inefficiency in physical and material resource distribution, high secondary school costs of education and financial resource mismanagement in schools. In the study I explored the experiences of Head Teachers (HTs) and Heads of Departments (HODs); factors affecting educational resources; and practices to sustain educational resources generation and management. I employed a mixed methods research approach using a multiple-site case study design. I purposively selected six government secondary schools with six HTs and thirty two HODs as participants of the study, in two regions of Swaziland. I generated data through a questionnaire, face-to-face interviews, focus group interviews and document analysis. Qualitative data were analysed by means of descriptive statistics. Qualitative data were analysed through thematic analysis. I adopted a three-pronged theoretical framework involving the collegiality theory of management, the systems approach and funding models. Findings revealed that while the schools had the basic resources, some of these were obsolete and others needed immediate repair. Although schools seemed to have the potential of linking with the external environment, resource generation therein was currently inward looking and very limited in terms of expansion strategies. The schools did not have structures in place for resource mobilisation and management. There was an apparent absence of clear policy guidelines on resource activities, no strategic planning conducted with the external world and school managers (HTs and HODs) seemed to lack skills and techniques for generating and managing educational resources. I conclude that the schools need to improve upon their internal mechanisms to manage existing resources. I further conclude that the current inwards looking approach to resource generation is unsustainable. Schools need to forge partnerships at two main levels: with other schools and with the broader community.

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## ACRONYMS

<b>CEO</b>	Chief Executive Officer
<b>EDSEC</b>	Education and Training Sector
<b>EFA</b>	Education for All
<b>EMIS</b>	Education Management Information System
<b>EMS</b>	Environmental Management System
<b>ESSP</b>	Education Sector Strategic Plan
<b>ETSDS</b>	Education, Training and Skills Development Sector
<b>FDI</b>	Foreign Direct Investments
<b>FGI</b>	Focus Group interviews
<b>FPE</b>	Free Primary Education
<b>GEA</b>	Global Education for All
<b>GDP</b>	Gross Domestic Product
<b>GER</b>	Gross Enrolment Ratio
<b>GET</b>	General Education and Training
<b>HDI</b>	Human Development Index
<b>HOD</b>	Head of Department
<b>HSSREC</b>	Humanities and Social Sciences Research Ethics Committee
<b>HT</b>	Head Teacher
<b>ICT</b>	Information Communication Technology
<b>ILO</b>	International labour organisation
<b>IPOF</b>	Input Process Output Feedback
<b>LMIC</b>	Low Middle Income Countries
<b>MBO</b>	Management By Objectives
<b>MDG</b>	Millennium Development Goals
<b>MoET</b>	Ministry of Education and Training
<b>NCC</b>	National Curriculum Centre
<b>NEP</b>	National Education Policy
<b>NETIP</b>	National Education and Training Improvement Programme
<b>NGO</b>	Non Government Organisations
<b>NPS</b>	National Policy Statement
<b>NVCO</b>	National Council for Voluntary Organisations

<b>OVC</b>	Orphan and Vulnerable Children
<b>PAC</b>	Public Accounts Committee
<b>POLCCC</b>	Plan, Organise, Lead, Coordinate, Control, and Command
<b>PTA</b>	Parent Teacher Association
<b>RDT</b>	Resource Dependence Theory
<b>RMT</b>	Resource Mobilisation Theory
<b>REO</b>	Regional Education Officer
<b>SBM</b>	School Based Management
<b>SDENR</b>	Swaziland Development of Education National Report
<b>SMO</b>	Social Movement Organisations
<b>SGRP</b>	School Guide Regulation Procedures
<b>SNL</b>	Swazi Nation Land
<b>SSP</b>	School Strategic Plan
<b>TSC</b>	Teaching Service Commission
<b>UBE</b>	Universal Basic Education
<b>UN</b>	United Nations
<b>UPE</b>	Universal Primary Education
<b>WB</b>	World Bank



## **CHAPTER ONE: OVERVIEW OF THE STUDY**

### **1.1 Introduction**

In this study I set out to investigate how educational resources were generated and managed in selected Swaziland secondary schools. In this chapter I describe the research problem and its setting. To achieve the goal I begin by presenting the background to the study. From there I move on to explore the challenges and factors that affect educational resources generation and management. Next I discuss the statement of the problem followed by the research questions, the significance of the study and the definition of key terms. In the final section I give an outline of the research report.

I have spent some time in teaching learners at secondary school level and took up a Head of Department (HOD) position in the process. My department was not performing up to the expected standard until I realised that it lacked some of the appropriate teaching and learning materials and tools that had had a bearing on learners' academic performance. The department moved the overall external examination results from about 40 percent to 100 percent pass rate in the eight years that I served in that secondary school. In the process of improving the results, we were provided with all required teaching and learning materials and our work was made a lot easier. I assumed a position of a Curriculum Designer, at the National Curriculum Centre (NCC) which is also a wing of the Ministry of Education and Training (MoET). Looking at government's provision and distribution of teaching and learning materials, I became curious in knowing whether there was proper guidance to the management of these facilities. I became interested in knowing more about how schools went about generating these resources for the continuity of education. It is my passion to know whether the goals of education in the country are being achieved and the extent to which resources are taken care of in schools as an Economist. My ultimate vision was to establish whether there are guiding principles regarding the management, provision and monitoring of resources in schools. I was also interested in understanding the factors affecting the mobilisation and maintenance of resources in schools. Therefore, this is what brought about my interest about this study.

## 1.2 Background to the Study

At independence in 1968, one of the aims of the government of Swaziland was to expand the availability of physical space in the school system following restrictions of the previous governments (National Policy Statement (NPS), 1999). Therefore, educational services and facilities were significantly expanded. Thus Universal Primary Education (UPE), that is, access of every primary school-going age child was attained in 1985. So, government efforts nowadays have shifted to addressing issues such as quality, relevance and affordability of the education. The ultimate goal is that graduates of the education system should contribute to the development of the country's economy (NPS, 1999).

The National Education Policy (NEP) (1999) and Education and Training Sector (EDSEC) Policy (2011) identify the Swaziland government's challenges at secondary school level of education. These include low and inequitable access, limited pathways, low relevance, internally inefficient, unaffordable costs and poor management. Further, the country lacks quality and quantity of secondary education to support its growth strategy. In terms of *access* the World Bank (WB) report (2010) found that current access levels in the country were low and not responsive to the demand for skills required to a sustainable economic development. With regard to *enrolment* the National Education and Training Improvement Programme (NETIP) (2013) shows that there is low access to secondary education. It indicates a net enrolment ratio of 33% for 2010. It points to low physical capacity at secondary level with poor infrastructure, classrooms, laboratories, workshops, furniture, water, electricity, sanitation, and sporting facilities in Swaziland schools (NETIP, 2013). Coming on to *inequalities* NETIP (2013) reports that inequalities of education access, inputs and outcomes result to difficulties for the country to use the Education, Training and Skills Development Sector (ETSDS) as they are thought to be the powerful equalisers. Therefore, government had to adopt a balanced expansion of access to all levels of the ETSDS. This is where by all learners disregarding the parents' income levels have full access to the same kind and level of education. Therefore, there is need for qualified teachers, appropriate infrastructure and material resources without any of them being limited by financial constraints.

With regards to *efficiency* in the education subsector, NETIP (2013) indicates that completion rates are low and years-input per graduate are too high. Concerning *school books* there is lack of a book policy thus management of secondary school book provision varies widely across

schools. A combined cost of textbooks, exercise books and stationery could be very high, exceeding 5000 Emalangeni (E5000) per year.

Secondary education provides a vital link between primary education and the world of work and further training. The Swaziland Development of Education National Report (2008) views education as the cornerstone for sustainable economic and social development of any country. Education and training is also known to be the panacea to most economic and social ills world over. Even many countries in the world view education as a good investment for personal, national and economic growth (Olatoun, 2012; Oluwadare, 2011; Sigilai, 2013). Therefore, this is an important sub-sector in the preparation of human capital development and provision of life opportunities (Sigilai, 2013; & World Bank Group, 2013). Asiabaka (2008) stresses that the quality of education that learners receive bears direct relevance to the availability or lack thereof of educational resources and the overall atmosphere in which learning and teaching take place. This means that accessibility and adequacy of resources and equipment in schools is a serious matter to educators. It is also in view of the indispensable role of education in the development of humans and the society that various declarations in education have been made at global level and in Swaziland.

Afolabi, Oyewusi and Ajayi (2008) suggest that the most effective way of sustaining education at secondary school level is the provision of adequate physical and material resources. This assumes that education in secondary schools can be effectively sustained if all schools are well resourced financially. Afolabi et al., (2009) also succinctly put it that the success of a secondary school depends on the resources available to it. So, there is need for improved quality of services in education through improved management of resources by schools, and efficient utilisation of resources leading to improved achievement of curriculum objectives. The World Bank (WB) Group (2013) holds that secondary education is a gateway to opportunities and benefits of economic and social development. Demand for access to higher levels of education grows drastically as countries approach universal primary education (UPE). Also, the global education for all (EFA) effort provides added momentum for the growth of secondary education. Further, globalisation and the increasing demand for a more sophisticated labour force combined with the growth of knowledge-based economies gives a sense of urgency to the heightened demand for secondary education. Consequently, secondary education is now being recognised as the cornerstone of educational systems in the 21<sup>st</sup> century. So, quality secondary education is indispensable in creating a bright future for

individuals and nations alike (WB Group, 2013). The WB Group (2013) also suggests that a cost recovery accompanied by encouragement of private and community schools can improve quality and efficiency in education for countries. There, a more holistic approach to secondary education is advocated for, rather than one which focuses on vocational education. In countries with low secondary education enrolment, the WB Group (2013) suggests that focus should be on: a) meeting specific shortages of educated manpower in the public and private sectors by raising secondary school completion rates and b) improving the social conditions of the poor and reducing inequality by expanding access to secondary education (WB group, 2013). This implies that it is imperative to invest in secondary school education and to furnish schools with sufficient resources that can sustain them to help achieve the county's development goals.

According to the EDESEC policy (2011) the government of Swaziland aims to provide interventions for educational resources in secondary schools like libraries, laboratories and textbooks to enhance the achievement of educational goals and objectives. Similarly, the WB Group (2013) suggests four factors that promote a rapid increase in the share of lending to General Secondary Education (GSE). a) The demand for secondary places has grown as primary completion has risen. b) The equitable and sustainable financing and management of secondary education becomes a challenge, especially in low-income countries. c) The role of secondary education in economic and social development is re-assessed in the context of globalisation and competitiveness. d) Changes in secondary education are driven by rapid transformations in technology and labour force markets. Seemingly, secondary education has been neglected in developing and financing education systems nevertheless, today its vital importance cannot be ignored. In addition, secondary education systems everywhere will need to be more flexible, relevant and responsive to both local needs and the global environment in the 21<sup>st</sup> century (WB Group, 2013). This means that policy makers, managers and educators need to address the challenges of increasing access, quality and relevance of secondary education for all young people.

According to the School Guide Regulation Procedures (SGRP) (1978) school leaders/Head Teachers (HT) are responsible for the supervision and control of the work of teachers and learners. They need to provide professional guidance, support and advisory services. They should ensure that the school is conducted in accordance with the procedures. In order to do the work effectively, the administrators must attend conscientiously all matters which are connected with planning, recording done by the teachers and the quality and quantity of written

work done by pupils (School Guide Regulation Procedures, 1978). Gibson, Ivancevich, Donnelly and Konopaske (2006) also emphasise that the chief executive officer (CEO) has to plan, organise, command, co-ordinate, lead and control school operations. In relation to school administration a manager is expected to carry out the following administrative tasks: curriculum and instruction, finance and business administration, physical facilities, school-community relations and personnel (Waweru, 2004). The school administrators' effectiveness and efficiency in their administrative roles in school leadership would be determined according to good leadership, which is the ability to vary leadership styles according to the needs of the situation, action oriented and being visionary. Therefore the administrator has to display excellent communication skills, have self confidence and be able to take risks. The school administrator motivates staff and learners in the school, has high integrity, able to generate loyalty and a good team builder. They must be well informed in many fields such as government policies on education, traditions and practices of the school's neighbouring community. They also have thorough knowledge of school, educational operations of such documents as the Education Act and teaching service commission (TSC) code of regulations for teachers (Waweru, 2004).

However, the reality on the ground is that administrators in schools do not always score highly when graded for their performances due to challenges they encounter in their work place that are not necessarily as a result of their own making. This suggests that there is a need to improve planning, coordination and management of resources in schools. Waweru (2004) and Gibson et al., (2006) observe that education management is the most fundamental and precious capacity resource that is required in all educational organisations. Therefore, it is important that education should be managed by various offices and bodies with clearly defined roles to avoid conflicts and confusion. It is also important that proper management of the national education goals regarding access, resource management and enrolment are realised sooner to achieve the country's vision 2022. Fasasi (2011) refers to management of secondary schools as a process of making use of the available resources towards the achievement of an education goal. This means, the head of a school and their staff have the administrative responsibilities of directing available resources towards actualisation of the goals of education. They plan classrooms and out-of-classroom activities for teachers and learners. They also co-ordinate the school activities in order to ensure that many programmes go on at the same time without one conflicting with others (Fasasi, 2011). Specifically the school manger develops personnel; improve instructional programmes and learners' personnel services. They also should ensure the maintenance of

effective interrelationship with the community and external agencies of the school (Ada & Ada, 2013). It is crucial therefore, that no matter how well a school is equipped, how relevant the school curriculum is, how well the physical resources a school has and how much money the stakeholders are ready to invest in education, but without proper management of these resources it may be difficult to realise efficiency and effectiveness in schools.

The WB report (2010) noted that Swaziland education management information system (EMIS) unlike its neighbouring countries Namibia and South Africa does not routinely capture the state of provision in the physical teaching and learning environment and the extent to which it may affect teaching and learning. Lack of accurate information of such provisions makes it very difficult to plan for provision and to track equity in provision. According to the WB report (2010) school inspectors' reports for the period 2004 to 2008 had documented poor maintenance and up-keep of school infrastructure. The reports showed that there was severe shortage of school furniture. Available spaces were said not to fit the purpose. Most schools lacked physical facilities and equipment required to effectively deliver the secondary school curriculum. Unavailable facilities in schools included special teaching rooms such as required for design and technology, agriculture, home economics, computer studies, libraries, and multi-media centres. Consequently, most secondary schools do not offer other practical subjects or do so inadequately. This defeats the goal to equip secondary school learners with practical skills (WB report, 2010). Because most school infrastructure is provided by communities to very uneven standards, available structures do not easily lend themselves to adaptations or renovations to suit practical subjects. The question then is, are the resources provided fair enough to cater for learners and are they well maintained and managed for the sustenance of secondary education in the country.

In Swaziland, not many researchers have attempted to identify and qualify what resources are available, how they are utilised and maintained in secondary schools, (NETIP, 2013) despite the many concerns arising from school resources management. Hinum (1999) emphasises that every country, region or community is concerned about such issues as the maintenance of ageing stock, vandalism, the reuse and adaptation of buildings, up-to-date furniture and equipment, and other learning materials. The quality life span of educational resources basically is affected by the way they are looked after, and the ways in which they are serviced and repaired in their life span. In this case, it shows that in many cases there is lack of information about effective procurement and management of resources in our schools.

According to Bakwai (2013), educational resource scarcity may be overcome by the ability of educational planners to discover new sources of the education sector facilities. But, the slow rate of this discovery, may not overcome the growing imbalance between education demand and the limited amount of educational resources in an economy. Therefore, this suggests that there is need to build and operate a supply chain marked by unprecedented educational resource scarcity. In the discussion of issues of resource allocation and budgeting, the EDSEC Policy (2011) shows its primary focus on financial resources, but ignores the regulation of the other educational resources like physical and material resources. This study sought to investigate the availability and maintenance of these educational resources that are already there in schools considering their demand and supply balance.

In this study I sought to examine the generation and management of educational resources in selected secondary schools. The resources include classrooms, laboratories, utilities such as electricity, water supply and communications, teachers, money, teaching and learning materials including text books, teaching aids and equipment. So, it is understandable that for a successful operation of any school, there is need to generate some resources for efficiency. Thus, the importance of the provision of adequate instructional resources for education cannot be over-emphasised. It is against this background that this study is determined to investigate the dynamics of generating and managing educational physical and material resources in Swaziland selected secondary schools.

### **1.3 Statement of the Problem**

Swaziland, in an attempt to reduce the cost of education for every learner, introduced the State-funded primary education programme which is commonly known as free primary education (FPE) in 2010. According to the Millennium Development Goals (MDG) report (2010), the government provided new classrooms to accommodate increases in primary school enrolment because the large class sizes created a poor learning environment. The government also considered enhancing general school facilities such as desks, chairs, access to water and electricity especially in rural schools. According to the schools list (2013) there are 594 primary schools and 236 secondary schools in the country. This is an indication that there are by far more primary school leavers that may not be able to access secondary school education in the country. This may probably be due to lack of resources and facilities therefore, thus the provision for entrance into secondary school learning has to be looked at as a matter of urgency. This implies that such provisions should also be considered for secondary school

enrolment as the FPE is envisaged to be rolled out to the secondary school level in the near future. The secondary schools need to develop in order to accommodate the problems where many primary school leavers would be unable to gain admission at this level of education.

The Prime Minister in his speech during the opening of Parliament in 2013 expressed concern about recurring evidence of misuse of funds within the education system. He promised to address that issue through enlarged programmes of audit, where fraud and other forms of resources' misuse would be redressed. Khumalo (2013) attests that the low quality of education in Swaziland is a cause for increasing concern. She notes that some of the contributing factors are indicated by teacher qualifications, teaching strategies, school infrastructure, teaching and learning materials, school equipment and class sizes. These seem to frustrate the development and innovativeness of the education sector. Moreover, free primary education programme has its own challenges, such as limited infrastructure, inadequate learning facilities, and questions as to the sustainability of both FPE and Education for All (EFA). It is thus believed that by expanding secondary school physical facilities, relocation of resources within the education sector and putting in place a resource efficiency strategy for schools, the plan for attaining quality education could be achieved.

According to EDSEC Policy (2011, p. 32) the government of Swaziland aims to:

“a) procure sufficient resources that will meet the needs of all learners in public secondary schools. b) locate, map and audit secondary school infrastructure and distribution to create a register of the buildings and their geographic location in relation to feeder primary schools. c) undertake a prioritised, phased planning for upgrading, renovation and building of new facilities. d) review the job descriptions and terms of reference of all teachers and head teachers and system managers at every level to place them on a performance management system”.

The WB report (2010) and Khumalo (2013) affirm that the cost of education and training services to both households and to the government is a binding constraint to expanding access. General education fees are too high for most households and this leads to the low participation of children of low socio-economic status. Figures show that households contribute about 14 percent and 30 percent of primary and secondary school expenditure respectively. Primary education fees account for about 22 percent of the income of poor households. The WB report (2010) indicates barriers to access including low physical capacity of the system for secondary



education. Also, long distances some learners walk to school, averaging 17 kilometres per day. The WB report (2010) suggests that junior secondary education should be substantially subsidised to reach a ratio of 10:90 households to government contributions to the sub-sector expenditures by 2022, through the provision of teaching and learning materials. The ratio for senior secondary education should be 20:80 by the same year. Orphan and vulnerable children's (OVCs) grants be sustained and strengthened to ensure their effective participation in General Education and Training (GET). Tertiary education and training unit costs need to be restructured and aligned to those of other Low Middle Income Countries (LMICs) (WB report, 2010). Therefore, this implies lack of resources, high costs and low access to secondary education in the country.

Furthermore, controversies have arisen on the costing of secondary school education in the country. Observations from media showed that education at this level is very expensive. Also, a number of school administrators lost jobs on accusations of financial mismanagement issues and some learners being deprived access to secondary school education due to the high costs (Nkambule & Zwane, 2014, p. 8). These issues were noted in seminars, conferences, workshops, in community meetings, urban areas and even in subject panel meetings (Kunene, 2014, p. 2). This suggests that there is not enough empirical evidence on how Swazi schools fare, with regard to generating and managing educational resources. It seemed that there were elements of inefficiency in secondary school operations and that some of the objectives of education were not fully met at this level of education. It also appeared that there was lack of documented information on how the educational resources are managed in schools. There were indications that many schools were not undertaking this function well. To illustrate, the media often reported procurement corruption by schools regarding school uniforms, stationery, cleaning materials and others. Head Teachers (HTs) reportedly used relatives as suppliers in order to benefit from the deals (Shongwe & Zwane, 2015, p. 3). Also, there were cases on mismanagement of school funds by head teachers bringing about disputes in issues of costing education at secondary level. This has remained the key impediment of access at the secondary level of education (Education Sector Strategic Plan (ESSP), 2010). These issues resulted in a number of school administrators appearing before the public accounts committee (PAC) on such accusations as school funds misuse, dishonesty and embezzlement (Ndzimandze, 2014, p. 13). Therefore, most governing school bodies seemed to lack essential knowledge and skills to manage physical and material resources effectively. This may result in poor learner performance and low educational outcomes in schools. The country therefore, needs external

and national resources to finance some reforms proposed on these issues. However, without prior measures to redress the current inefficiencies, additional resources may still be wasted.

The WB report (2010) indicates that recent inspector' reports for the period 2004 to 2008 documented poor maintenance and up-keep of school infrastructure. The reports highlighted that most HTs were ill-equipped for their positions. Key weaknesses pertained to school management and administration, financial management, human resources management, time management, instructional leadership, clinical supervision of teachers and management of student time. Therefore, head teachers and their assistants are expected to use their administrative skills to solve problems that arise in school leadership and ensure that educational objectives are achieved. Moreover, from my practical experience and personal observations of secondary school operations there were cases on the wrong utilisation of material resources. Therefore, in such a situation it would be logical to expect some gaps in the way resources are generated and managed in schools. For instance, I could informally observe broken chairs at the back of classrooms, unmaintained old classrooms, dusty libraries, besides the various challenges raised by school Head teachers to manage the educational resources. All these experiences encouraged me to study this topic.

This study sought to explore the dynamics in resource generation and management in schools and hopes to contribute knowledge to policy regarding the effectiveness of management functions regarding educational resources. Since expenditure on education is regarded as an investment to the government and parents, there is need for continuous appraisal for secondary schools to ensure cost effectiveness and prudence on educational resources. These efforts may minimise the challenges of high costs in secondary education and hence, improve effective generation and management of resources in schools. Therefore, it is very important to have a steady supply of educational resources, a fair distribution, proper maintenance and management of the resources to satisfy school demands. So, as a result of the limited amount of literature on resources allotted to schools and their management in Swaziland schools, the study aimed at investigating educational facilities maintenance to provide sustainable strategies for resources towards the development of secondary school education. The study hopes to provide guidance on more prudent strategies on educational resources, since it appears that little attention is given to the investigations on resource management in the country over the years.

### **1.4 Research Questions**

The study set out to answer the following research questions:

1. How do Head teachers and teachers experience the dynamics of generating and managing educational resources in their schools?
2. What factors do teachers and Head teachers pronounce to affect the generation and management of educational resources in secondary schools?
3. How can sustainable practices of generating and managing educational resources in the selected schools be characterised?

### **1.5 Significance of the study**

This study addressed an up-and-coming issue and is hoped to benefit all stakeholders in education by contributing knowledge to the art of effective management of educational resources at secondary school level. It may create understanding in school administration work and bring improvement in the way learning facilities are procured and distributed for secondary schools. It should contribute to informing schools about the state of provision of physical learning and teaching environment and the extent to which these may affect teaching and learning (WB report, 2010). The outcome of the study is expected to help education planners, school administrators and all stakeholders involved to update their skills in the effective management of limited school resources to achieve the greatest advantage. The findings are hoped to also attempt to create knowledge for the MoET on the need to appoint school heads on the basis of administrative competencies and the importance of the maintenance of school infrastructure in order to sustain the resources allotted to their care. The outcome of the study hoped to highlight the priorities within the MoET and provide a route to decisions on allocation of educational resources and leverage the case of financial support for the education sector towards vision 2022 and beyond. It should assist the educational managers at all levels to identify the areas of educational resources needs and formulate policies for efficient allocation of the resources for secondary schools. This will also enhance teaching and learning in secondary schools. This study is believed to add knowledge to certain strategies that may be employed to curb challenges regarding resources as stipulated in policy documents. The study outcome is also anticipated to suggest better ways of, planning for the future on means of maintaining and distributing resources in a balanced way. This is meant for schools to get the best resources and sustain the country's education system and governance in all situations.

## 1.6 Clarification of Terms

Key terms used to the understanding of the study are dealt with at length in the literature chapter. In this part of the report I present brief explanations of some of the terminology to facilitate the introduction of the study.

**Dynamics** are processes that produce change inside a group or system (Cambridge Advanced Learners Dictionary, 2010). Dynamics in this study refer to factors affecting the generation and management of educational resources in schools. This can be an investigation on the capabilities among school managers in changing and making progress in schools regarding effective generation and management functions.

**Management** is “getting things done” (Sourish, 2013). It comprises planning, organizing, staffing, leading, directing and controlling the efforts of organisation members and using all resources to achieve desired organisational goals (Dash and Dash, 2008).

**Resources** are things that can be used to help achieve a goal (Cambridge Advanced Learners Dictionary, 2010). **Educational resources** refer to facilities and tools needed by schools for effective and efficient operation in order to achieve their goals. They are any materials used as input or resources that can facilitate the overall teaching and learning process in school system. They are facilities provided to learners so that they can use every opportunity to develop full potential. These facilities include buildings, fixture, equipment necessary for the effective and efficient operation of the programme of public education, classrooms, libraries, rooms and space for physical education, space for fine arts, restrooms, specialised laboratories, cafeterias, media centres, building equipment, building fixtures, furnishings, related exterior facilities, landscaping and paving, and other similar items which the MoET may determine necessary (Womack, 2012).

**Generating resources** refer to activities and initiatives of the institute which result to additional resources on top of the regular budget allocated to the institute. Resources generated may be in the form of monetary or non monetary. Non-monetary examples of resources include equipment, vehicles, supplies, etc. (Gast, n.d.).

**Efficiency** is defined as obtaining the maximum possible performance from a given expenditure of resources (Gast, n.d.). (Hanushek, Rivkin & Taylor, 1996; Wyatt, 2006). Chaffey (2014) defined efficiency as “doing the thing right”.

**Effectiveness** is the ability to achieve stated goals (Scheerens, 1999 & Ninan, 2006). Chaffey (2014) added that effectiveness is “doing the right thing” meaning conducting the right activities and applying the best strategies for competitive advantage.

**Physical resources** include classrooms libraries, laboratories and workshops which are inputs in the teaching learning process.

**Material resources** include instructional inputs in the teaching and learning process, text books and equipment.

**Head Teacher** in this study is defined as principal, administrator, CEO, school manager or manager of an institution where teaching and learning takes place, the school.

**Sustainability** in this study can be viewed as the ability of the school to continue its operation, including the idea of accomplishing the education goals using funds available, expansion of its resource base and creating positive relationships with its environment.

## **1.7 Overview of the Report**

In this section I sign-post the route I have taken in compiling this study report. The report is made up of six chapters. Chapter One provides an introduction and background to the study and insight into the research idea. Consequent sections deal with the focus of the study, the statement of the problem, research questions and the significance of the study. The chapter ends with the summary definitions of key terms and then the overview of the subsequent chapters.

Chapter Two consists of the literature review which has the discussion of key requisites/terms used in the study. The chapter moves on to review international and local literature on principles, experiences, strategies and factors that affect the generation and management of educational resources in the education system. In Chapter Three I discuss the Theoretical Framework. It is made up of the systems resource theory conceived by Love and Skitmore

(1996); collegial model poised by Bush (2003); and Financial model for sustainability of organisational effectiveness through the funding models by Downes (2007). These theories provide the lens through which the phenomenon is viewed. The relevance of the framework to other chapters is made appropriately.

Chapter Four presents the research design and methodology of this study which is the mixed methods approach located within the pragmatism paradigm. The research used the purposive sampling strategy to select participants, a multiple site case study design for the unit of analysis and the concurrent triangulation design for the methodology. Data collection instruments and data analysis procedures are justified. The trustworthiness and ethical implications for the study are also clarified.

The Fifth Chapter reports on data presentation and discussion. This consists of discussions and interpretations according to the survey questionnaire, interviews and document analysis conducted on resource generation and management. The state of educational resources in the six cases and the management practices for sustaining educational resources in schools were discussed. Further insights into this topic under study are also provided.

Chapter Six brings the report to a close by presenting a summary of key findings in relation to the research questions posed at the outset of the study. The report concludes with a critical reflection on the whole process, brings implications and acknowledges some limitations of the study.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

In this chapter I review literature related to how educational resources are generated and managed. This chapter is made up six sections. In the first section I examine key concepts. Next I move on to discuss resource status and provision in Swaziland. This is followed by relevant studies and their implications. This is followed by generating resources in organisations. Next I move on to discuss managing resources in organisations. Finally I also discuss emerging issues in the literature.

### **2.2 Examining Key Concepts**

In this section I examine seven key concepts namely: management, resources, physical resources, material resources, mobilising/generating resources, efficiency and effectiveness; which are major to facilitating the understanding of the phenomenon. Some of these concepts were highlighted in Chapter One section 1.6 and now I provide some in-depth discussion about each of them.

#### ***2.2.1 Management***

Olum (2004) and Sourish (2013) define management as “getting things done”. This occurs through using the art and science of how to achieve targets and goals of an institution. Sourish (2013) explains management as an art that is about carrying out organisational functions and tasks through people. It involves the application of techniques in human and public relations; the delegation of authority, communication and managing change. Management as a science is concerned with establishing a philosophy, laws, theories, principles, processes and practices which can be applied in various situations, including schools. Management as an organisation is about creating formal structures and an establishment based on mission (or goals), objectives, targets, functions and tasks (Sourish, 2013).

Tasic, Tubic, Tasic and Mitic (2011, p. 326) define management as a “capability (skill, handiness) to do jobs with people or performing jobs by other people. It is giving knowledge in order to find how to apply one’s know-how to the best of his/her knowledge in order to find how to produce results”. In addition management is an interdisciplinary, complex scientific field which consolidates many elements of psychology, technical and social sciences. It can be

applied to nearly all aspects of life at all levels in management of organisations, districts, towns/cities, states, people, family and industry. Management can be divided into marketing, entrepreneurship, financial management, production, human resources and development, management of information, administration systems and management of economic laws (Tasic et al., 2011).

Management comprises the following functions: planning, organising, leading, coordinating, controlling, and directing (POLCC) (Olum, 2004; Dash & Dash, 2008; Onuoha-Chidiebere, 2011; Ada & Ada, 2013). *Planning* is to study the future and arrange a plan of operation (Dash and Dash, 2008). It ranges from the overall purposes and objectives to the most detailed actions to be taken to achieve the goals. It helps guide managers in the use of resources to accomplish specific goals (Olum, 2004). *Organising* is to build up materials and human organisation of the business (Onuoha-Chidiebere, 2011). It involves establishing an intentional structure of roles for people to fill in an organisation. These are intentional in the sense that all tasks necessary to accomplish the goals are assigned to people who can do them best (Olum, 2004). *Coordinating* is to unite and correlate all the organisational activities into one successful whole (Ehiametalor, 2003). Olum (2004) emphasises that it is the essence of manager-ship for achieving harmony among individual efforts towards the accomplishment of group goals. The manager is supposed to reconcile differences in approach, timing, effort or interest and be able to harmonise individual goals to contribute to organisational goals. *Controlling* is to see that everything is done in accordance with the rules of the enterprise and instructions given (Ada & Ada, 2013). Olum (2004) adds that it measures performance against goals and plans, shows where negative deviations exist and by putting in motion actions to correct deviations helps ensure the achievement of plans; thus controlling the organisational outcomes. *Directing* is to direct and influence the task-related activities of an entire organisation. It is the ability to give leadership and be respected by peers in the process of production (Ehiametalor, 2003).

Other functions of management include staffing, leading, reporting, decision making, budgeting implementing and executing the efforts of organisation members and using all resources to achieve desired the organisational goals (Gibson et al., 2006). *Staffing* involves filling and inventorying the people available, or otherwise developing current job-holders to accomplish their tasks effectively and efficiently (Olum, 2004). *Leading* is influencing people so that they contribute to organisation and group goals. This has to do predominantly with the interpersonal aspect of managing. It involves motivation, leadership styles and approaches and



communication (Olum, 2004). *Budgeting* is the process of setting financial goals, forecasting future financial resources and needs, monitoring and controlling income and expenditures, and evaluating progress toward achieving the financial goals. A good budgeting process engages those who are responsible for adhering to budget and implementing the organisation's objectives. Budgeting decisions are driven both by mission priorities and fiscal accountability (Foley, 2010). Ada and Ada (2013) agree that correct budgeting has something to do with prudent management of fiscal resources allocation, office space and equipment. A decision can be defined as a course of action purposely chosen from a set of alternatives to achieve organisational or managerial objectives or goals. *Decision making* process is continuous and indispensable component of managing any organisation or business activities. It is concerned with selecting a course of action based on some criteria from among alternatives to achieve a predetermined objective (Selin, 2006). Therefore, from the elements one can draw the following important features of managerial decisions: rational, thinking, process, selective, purposive, positive, commitment and valuation for any school operation.

According to Dash and Dash (2008) management is the primary force within any organisation which coordinates the activities of its objectives. It can be studied both as a process and as a theory. As a theory, management includes knowledge, the art and the principles relating to the management of an organisation. As a process, it includes human relations and managing physical and financial resources (Dash & Dash 2008). Kуттыта (2008) classifies management into four groups. a) The process school defines management in terms of functions undertaken by the manager in an integrated way to achieve organisational purposes. b) The human relations school emphasises the humane aspect of organisations and conceives it as a social system. This is because managerial actions are principally concerned with relations between people. Managers accomplish the results of an organisation through the efforts of other people. c) The decision school defines management as a rule-making and rule-enforcing body. Whatever the manager does, he/she does through his/her decisions. The decision making power provides a dynamic power to transform the resources of an organisation into a productive and cooperative concern by the manager. d) The system and contingency school considers organisations as living organisms that must adapt themselves into their environments for survival and growth (Kуттыта, 2008). Therefore, the manager must achieve results efficiently and effectively by formulating policies and strategies in accordance with the prevailing environmental conditions.

According to Dash and Dash (2008) school management is an act of managing or administrating a school. School management means the use of people and other resources to accomplish the objectives of the school. In schools, the manager needs to make proper use of human, material and financial resources to accomplish objectives. Dash and Dash also classify school management into two aspects: internal management and external management. Internal management of the school covers admission, management of the library, laboratory, buildings and other physical and material resources, examination and promotion, relations with colleagues and learners, etc. External management covers relations with the community, Ministry and other persons and agencies connected with the establishment and functioning of the school. School management is a cooperative human endeavour. Although the head of the school is the manager of this human enterprise, the cooperation of teachers, parents and the community members is essential for effectively managing the school (Ada & Ada, 2013). Fasasi (2009) clarifies that management of secondary schools refers to a process of making use of the available resources towards the achievement of an education goal. Therefore, the school manager must be equipped with prudent management and correct budgeting of fiscal resource allocation, office space and equipment.

Dash and Dash (2008) identify characteristics of school management. a) Multidisciplinary – management draws knowledge and concepts from various disciplines such as psychology, sociology, economics etc. It integrates concepts drawn from various disciplines and applies them to the functioning of the organisation. b) An applied branch – school management has not yet developed as a separate discipline although, management is a distinct field of study. It is an applied branch of management which applies the techniques and principles of management to accomplish the desired objectives of the school. c) Flexibility – school management should not be based on rigid principles, instead it should be flexible. Although there are rules and regulations of every school, these should not be followed very rigidly. Rather there should be scope for additions and alterations depending upon the situational demands. But flexibility does not mean that management should be in a fluid condition without any specific norm or standard rules and regulations, because fluidity may create confusion and chaos. What is meant is a proper balance between rigidity and flexibility. d) Practicability – school management should not be a bundle of theoretical principles. The school should decide its objectives which are achievable. It should provide measures to achieve the objectives which are practicable. e) Humane – school management is humane in nature in that it deals with human beings – teachers, learners, parents and community members. It is concerned with the welfare and

development of human beings in the school setting. Therefore, the human element is also the most essential element of school management.

f) Conformity with the social and political philosophy of the country – there must be a close connection between school management and social and political philosophies of a country. Management of a school must adjust itself to the ideals, patterns and ethnicity of a society. It must be in conformity with the political system of the country.

g) Objective-based – every school has certain objectives. The school organises men and materials to accomplish these objectives. Planning, organising, direction control, decision-making and evaluation, must be geared to the accomplishment of the objectives of the school. School management in modern days is, therefore, regarded as ‘management by objectives’ (MBO).

h) Science and Art – school management is both science and an art. That is, school management cannot be regarded as pure science, as natural or physical sciences are. It can be called ‘inexact science’ or ‘pseudo-science’. As a science, school management is concerned with the ‘why’ of a phenomenon. Management is also an art, that is, it is concerned with the ‘how’ of it. Hence, school management emphasises not only scientific principles but it is also based on intuition, experience and common sense.

i) Relative, not absolute – the principles of school management are not absolute. They are relative in that, schools differ from one another in terms of size, homogeneity, stability, viscosity and hedonic tone. Since schools differ from one another, the style of management must also vary from school to school. The same head teacher, who has been successful with certain techniques in one school, may be a failure with the same techniques in another school because of the differences in situational factors.

j) A semi-profession – although management has grown as a profession in business and industry, school management is not a profession. The main benchmarks of a profession include: i) a body of specialised knowledge, (ii) formal training and expertise, (iii) an organisation to espouse professionalization, (iv) an ethical code for the guidance of conduct, (v) the licensing of practitioners, and (vi) a commitment to service rather than to monetary benefits. Therefore, in terms of these benchmarks, school management cannot be called a profession but rather a semi-profession (Dash and Dash, 2008). Asiabaka (2008) mentions that several individuals occupying managerial positions in schools lack knowledge of management processes, and some who possess the knowledge fail to put it into practical use in the management of the schools. School facilities management requires intermixture of experts in different areas. This demands that the school administrators should possess the necessary human relations skills to assemble and utilise the relevant individuals within and outside the school for efficient facilities management.

According to Bakwai (2013) and Freeman (2014) the need for processes to better manage educational resources is an important matter for all school educational planners. Having a complete picture of what they own, where it is and knowing where it needs to be, allows the planners to maximise resources, minimise the cost of lost assets, more accurately forecast for future purchases and ensure learners have access to the materials they need to succeed. Freeman (2014) further argues that while budget constraints are usually the key driver for improving school assets management, there are other benefits to gaining control over the vast inventory of instructional materials, computers, equipment and all other items teachers and learners require for success. These include: maximising the value of fixed assets and portable assets; ensuring every learner has the books they need to succeed; delivering centralised resource management and providing an engaging and collaborative environment. For example it is necessary to ensure that text books, laptop carts, workbooks, learning materials are available where and when they are needed. Shrinking budgets lead to growing scrutiny over how every educational money is spent. This puts increasing pressure on administrators to prove that money is appropriated responsibly. For example to ensure that each learner is being properly and equitably supplied with required resources. It makes it easier for educational planners to track, document and report on their effectiveness in matching educational resources with student needs (Freeman, 2014). The EDSEC Policy (2011, p. 52) affirms that resource allocation should be driven by content and direction of the ESSP to arrive to realistic assessment of resource requirements.

Thus learning from literature, in this study I use the term ‘management’ to mean the art of administration displayed in solving emerging problems in schools while in the process of achieving the stated goals and objectives. It is the art of designing and maintaining an environment in which resources can be effectively and efficiently utilised in order to accomplish the goals of the school. Management should take place almost in all situations in the school to help give a complete picture of what it owns. This can allow planners to maximise the resources, minimise costs of assets and forecast for future purchases more accurately in order to survive longer.

### **2.2.2 Resources**

Resources are things that can be used to help achieve a goal (Cambridge Advanced Learners Dictionary, 2009). The Business Dictionary (2014) defines a resource as an economic or productive factor required to accomplish an activity, or as a means to undertake an enterprise

and achieve desired outcomes. Asiabaka (2008) describes facilities as resources or materials designed to serve specific purposes. Downes (2007, p. 30) defines resources according to their functions: *learning resources* consist of the courseware, content, modules, learning objects, learner-support and assessment tools, and learning communities. *Resources to support teachers* are tools for teachers and support materials to enable them to create, adapt, as well as training materials or teachers and other teaching tool. They are *resources to assure the quality of educational practices* in the organisation. According to Womack (2012) resources are facilities provided to learners so that they can use every opportunity to develop full potential. These facilities include buildings, fixtures, equipment necessary for the effective and efficient operation of the programme of public education, classrooms, libraries, rooms and space for physical education, space for fine arts, restrooms, specialised laboratories, cafeterias, media centres, building equipment, building fixtures and furnishings, related exterior facilities, landscaping and paving, and other similar items which the MoET may determine necessary.

In addition, Onuoha-Chidiebere (2011) describes teaching resources as the different kinds of materials that teachers and classes use in the teaching and learning processes in order to make it more effective and productive. They are resources, equipment and materials which the teacher can use to achieve lesson objectives. Resources are the materials or objects which help the teacher to make a lesson explicit to learners. They transmit information and ideas to the learners and disseminate information in such a way that their aptitude, habits and practice will be modified in a complex task. In a general sense, teaching resources usually supplement rather than substitute a lesson. Thus in this study, the term educational resource is used interchangeably with other terms like teaching/learning materials, instructional materials, instructional aids, instructional resources, audio-visual aids, curriculum materials, school facilities and educational materials. According to Oluremi (2014) educational resources are the sum total of the inputs that go into the school system. These include: financial, material, human and physical resources.

Owoeye and Yara (2011) assert that resources constitute a strategic factor in organisational functioning. This is because they determine, to a large extent, the smooth functioning of any social organisation or system including education. The availability of resources, their adequacy and relevance influence efficiency and high productivity. A society that is wealthy is able to establish good schools with learning infrastructure for learners to learn with ease thus bringing about good academic achievement. Therefore, school resources are observed as a potent factor

for efficient education. Commenting on why academic attainment is not vogue in schools, Owoeye and Yara (2011) identify poor and inadequate physical facilities, obsolete teaching techniques, overcrowded classrooms as factors among others, in Kenya. Everywhere in primary, secondary, special, technical, tertiary, there is evidence of crippling inertia, criminal neglect and pervasive decay in values of standards on the glowing inadequacies of school facilities in the education industry (Owoeye & Yara, 2011).

Other scholars Ajayi (1996); Yara and Otieno (2010); and Agabi (2010) have variously identified the significance of resources in the teaching and learning spheres. A resource in education is determined by the level of education and the type of education to be provided. Thus, one can say that the absence or poor and/or deteriorating quality of educational resources can negatively affect academic performance and the way facilities are managed in schools. Owoeye and Yara (2011) also emphasise that facilities form one of the potent factors and contribute to academic achievement in the school system. School facilities include school buildings, accommodation, classrooms, libraries, furniture, recreational equipment, apparatus and other instructional materials. Dahar and Faize (2011) assert that learning is strengthened when there are enough reference materials such as textbooks, exercise books, teaching and learning aids and classrooms.

Therefore, in this study I use the term ‘resources’ to refer to facilities, equipment or materials, productive factors, inputs or aids employed by schools for effective and efficient operation in order to achieve intended goals. These facilitate learning and aid retention in the learners to achieve the stated objectives. In other words, resources are tools needed in the effective performance of tasks in schools as organisations.

Moreover, Onuoha-Chidiebere (2011) categorises educational resources under human and non-human or material resources. Human resources are teaching and non-teaching staff (Agabi, 2010). Onuoha-Chidiebere (2011) states that human resources are the different categories of personnel that provides different services in the teaching and learning processes. Non-human or material resources can be grouped as financial resources and all monetary inputs into the education system directed towards the achievement of specified educational objectives (Agabi, 2010). Afolabi et al., (2008) argue that money is an important resource because by it all other vital elements in the school can be obtained such as buildings, purchase of equipment, payment of staff salaries, maintains the plant and payment of operating expenses. No organisation can

survive or carry out its functions effectively without adequate financial resources at its disposal. Money is needed to keep the services going. Thus sufficient money is needed to buy text books, establish new buildings, buy equipment and maintain other services that are required by a school to carry out its functions as an educational institution. Onuoha-Chidiebere (2011) adds that money is required to acquire the other resources. Ehiamekalor (2003) agrees that, resources for achievement of school goals include equipment, buildings, learners, teachers, non-teachers, money and materials. These resources are very important such that no school system can give qualitative teaching and learning without them. Afolabi et al., (2008) emphasise that education should be relevant to the needs of the economy and society. Accordingly, resources are essential tools needed in the effective performance of tasks in education.

In this study I focused on two types of educational resources namely, material and physical, since they are the foundation of education and without them there is no schooling that can take place (Ehiamekalor, 2003; Olagunju & Abiona, 2008; Onuoha-Chidiebere, 2011; Alaka & Obadara, 2013).

### ***2.2.3 Physical Resources***

Schools are established for the purpose of instruction. Therefore, teachers and learners must be properly accommodated in facilities that enhance teaching and learning. The school physical structures protect the physical and emotional well-being of the learners and teachers from sun, rain, and danger. They also provide for comfort, safety and performance (Alimi 2012). Ehiamekalor (2003) defines physical facilities as “those factors which enable production workers to achieve the goals of an organisation”. Agabi (2010) adds that physical resources include such items as school plants, classrooms, offices, recreational facilities and the entire school ground. According to Afolabi et al., (2008) physical facilities include spacious and well ventilated classroom, adequately equipped laboratories and technical workshops, well-stocked libraries, assembly halls, recreational ground, farm land, gymnasias, health centres, consoling rooms, staff offices and conveniently placed urinals and latrines. Physical resources include such items as school plants, classrooms, offices, recreational facilities, utility and school grounds.

Olatoun (2012) classifies physical resources into buildings and equipment, which include permanent and semi-permanent structures such as machines, laboratory equipment, the

chalkboard and office assistants' tools such as brooms and cleaning materials. The availability of a library, school buildings, furniture, laboratories, textbooks, teaching and learning resources are symbols of high education quality (Sigilai, 2013). According to Owoeye and Yara (2011) the *library* is an essential resource in the teaching and learning process. The main purpose of a school library is to avail to learners, at easy convenience, all books, periodicals, and other reproduced materials which are of interest and value to them but, which are not assigned as basic or supplementary textbooks. In addition, as a resource, the library occupies a central and primary place in any school system. It supports all functions of school-teaching and provides service and guidance to readers. According to the EDSEC policy (2011) the government of Swaziland points out the importance of a library as a need that every public secondary school must be introduced to and be well resourced. Therefore, the library should be up-to-date and at the same time allow access to older materials. Sigilai (2013) admits that individual reading done in the library is beneficial to learners. It is where learners get to update class work with individual research and reading. However, the experience is not smooth because libraries are poorly stocked and most books are obsolete in other schools. On the other hand, in well established schools, libraries are well-built, modern and conducive for research.

A number of research findings have shown that the success of any educational endeavour rests on the availability of physical facilities especially the *school buildings*. For example, Owoeye and Yara (2011) observe that the availability of school buildings and other plans contribute to good academic performance and they enhance effective teaching and learning activities. The total environment within a school building should be comfortable, pleasant and psychologically uplifting. It should provide a passive physical setting that is educationally stimulating, produce a feeling of well-being among its occupants and it should support the educational process. But this can be met through the cooperative efforts of imaginative teachers and administrators. Clarke (2007) succinctly puts it that school buildings are very vital input to the educational system and emphasises that even though they do not teach but their use may either facilitate or encumber learning. Clarke (2007) also stresses that education institutions from nursery to university require buildings for their effective operations. Classrooms, offices, assembly halls, laboratories and teachers' quarters are needed. So, important items like furniture for staff and learners, books, science equipment, games and sport equipment should be adequate in number and they should all be in good conditions for schools to function properly. The *laboratory* has been conceptualised as a room or a building especially built for teaching by demonstration of theoretical phenomenon into practical terms (Owoeye & Yara, 2011). A laboratory stimulates



learners' interests as they are made to personally engage in useful scientific activities and experimentation. It promotes long-term memory for knowledge obtained through the laboratory work. The laboratory affords learners with basic skills and scientific methods of problem solving. It also helps provide a forum where learners are given the exercise to subjects, beliefs, ideas, statements or theoretical propositions to some forms of experiential test (Owoeye & Yara, 2011).

Olatoun (2012) stresses that efficient management of school physical facility is mandatory in order to make the school a pleasant, safe and comfortable centre for community activities. The school administrator has to play a major task in the management of all the physical facilities. Schools should be conversant with universal principles of managing physical facilities. Proper application and understanding of such principles would contribute to correcting deficiencies in physical facilities' management practices and in turn would facilitate instructional programmes in schools. Further, physical facilities are essential materials that must be put in place and into consideration for the objectives of the school system to be accomplished. Also, the availability of these facilities determines the quality of instructional and performance of learners in the school (Olatoun, 2012). Onuoha-Chidiebere (2011) confirms that physical facilities are very important in teaching and learning processes. Their effective management can yield good results. According to Ehiametalor (2003) in a school where the buildings are not enough, the classes will be overcrowded. In a situation where seats are inadequate, learners are forced to sit on the floor, thus learning becomes difficult. Facilities just like human resources need to be managed to increase productivity. Ehiametalor (2003, p. 14) further notes that;

“School facilities are the operational inputs of every instructional programme. The school is like a manufacturing organisation where plants and equipment must be in a top operational shape to produce results. Efficiency in the production function depends on how well the plants have been maintained”.

Onuoha-Chidiebere (2011) adds that schools that have well managed physical facilities and instructional materials such as libraries with books, equipped laboratories, teaching and learning materials both visual and audio-visual will perform better than where the facilities are not available or where they are available but not properly managed. This is because learners learn better with their five senses. They like to see, hear, touch, smell and taste. So, facilities should be provided to schools. On the other hand, schools should make sure that the facilities

are properly managed. This is because without effective and efficient management of teaching resources, the objectives of education will not be achieved.

Sigilai (2013) observes that schools with adequate resources such as laboratories stand a better chance of performing better in examinations than poorly equipped schools. The availability of teaching and learning resources enhance the effectiveness of schools and these are basic things that can bring about good academic performance in learners. Effective schools together with the availability of all educational resources can bring about learners that perform well academically. The implication of this opinion is that teachers should be effectively involved to transfer knowledge and facts to learners for good performance.

Thus, in this study, physical resources refer to educational inputs which include classrooms, libraries, laboratories and workshops necessary in aiding the teaching and learning process to facilitate the performance of any school organisation. The physical resource availability and contribution therefore, add to school performance and produce best outcomes for the schools.

#### ***2.2.4 Material Resources***

Onuoha-Chidiebere (2011) defines material resources or instructional materials as tools and devices through which stimuli can be passed on or obtained. Agabi (2010) exemplifies material resources as instructional aids, stationeries, education plans, objectives and prescribed methodologies. Afolabi et al., (2008) add that material resources are made up of items of furniture, laboratory materials (consumable and non-consumable), motor vehicles, instructional tools, books and other stationery items as well as utilities such as electric power, gas and portable water in schools. Thus, to achieve quality secondary education and to be effectively sustained, there is need for schools to be funded in material resources.

According to Cohen and Fickel (2005) the supplies, materials, office space and equipment used to support the administrative capacity are classified as material resources. This category may also include the resources associated with information, recruitment and selection, such as costs of holding outreach meetings; development, design and printing of publications and brochures; and time spent in interviewing and selecting applicants. Onuoha-Chidiebere (2011) observes that teaching materials can be used to record, store, preserve and transmit or retrieve information, and that they are also known as information carriers.

Anyadike (2014) elucidates that material resources management is a scientific technique, concerned with planning, organising and control of materials from their initial purchase to the school as an organisation. The aim of material resources management is to get the right quality; right quantity of supplies at the right time, at the right place, for the right cost. Further, material resource management helps gain economy in purchasing, to satisfy demand during the period of replenishment, to carry reserve stock to avoid stock out, stabilise fluctuations in consumption and provide reasonable level of client service. The management of these resources is therefore germane to the sustainable development of the education system. Oluremi (2014) emphasises that good educational managers must carefully and effectively handle educational resources; particularly money, materials, equipment and machines, put under their custody. Owoeye and Yara (2011); and Sigilai (2013) variously highlight that textbooks as a material resource make contributions to academic achievements. Textbooks provide the only source of information for learners as well as the course of study for the subject. Therefore, for many teachers, textbooks provide an excellent and useful resource without usurping the position of the teacher.

Agabi (2010) adds that on some roles of material resources in educational management, it is not possible to deliver effective education without some level or relevant resources. Instructional resources provide a solid basis for conceptual thinking; increase the propensity of the brain to retain information; make learning more interesting; and take care of differences that may exist among learners. In this particular case, this implies the need to take good care of resources available now to help the future generation use them in order for schools to succeed. Bakwai (2013) also illustrates that material resources include among others, teaching and learning aids, text books, stationeries, education plans, objectives, prescribed methodologies and equipment.

Therefore, material resources in this study refer to instructional inputs, tools and devices needed in the teaching and learning process. These include text books and equipment to facilitate in the successful delivery of a lesson and achievement of the objectives of the school in the short and long-run periods. This study considers physical facilities and instructional materials as essential educational resources.

### 2.2.5 *Generating or Mobilising Resources*

Seltzer (2014) defines resource mobilisation as all activities involved in securing new and additional resources for an organisation. It involves making better use to and maximising the existing ones. It is about ensuring that existing resources are used in a way that is supportive and about obtaining additional ones to cover the additional education needs. Resource mobilisation is important in an organisation as it: ensures the continuation of the organisation's service provision; supports organisational sustainability; allows for improvement and scale-up of services provided by the organisation (Seltzer, 2014). Therefore, all organisations must be in the business of generating new resources to stay in business. Nyirenda (2014) also stresses that resource generation is the ability of the organisation's members to acquire resources (physical, fiscal or material) and to mobilise people towards accomplishing the organisation goals. For example, when schools need money for the construction of infrastructure such as classrooms; procurement of text and reference books, laboratory equipment and other facilities, they might need fund raising to meet these educational needs.

According to Batti (2014) resource mobilisation is a process where by both financial and non-financial resources are generated or organised either externally or internally to support organisation activities. Fundraising is the act of persuading people or organisations to raise money to support a charity or an organisation. Fund raising means that the funds are elsewhere and approaches need to be explored to access the funds. Thus, resource mobilisation requires a lot of time and skills to seek resources from different sources. The pressure to mobilise the resources may lead the organisation to use methods that compromise the values they are fighting for through their work. Gast (n.d.) comments that resources generated may be in the form of monetary or non-monetary. Non-monetary examples of resource generation may include acquiring equipment, vehicles, supplies, etc.

Batti (2014) further argues that resource mobilisation has two concepts: non-financial resources which are very crucial; and resources that can be generated by the organisation internally than sourced from others. There are two categories for sourcing resources. *Conventional* means: this is through individual philanthropy, private foundations, corporate agencies, government and foreign development agencies. *Non-conventional* means: this is through membership fees, businesses and income generating activities, prizes or awards. The resources are mobilised through accessing existing resources through private and public sources, generating new wealth and capitalising on non-financial resources (Batti, 2014). Zhimin, Kipchumba and Chelagat

(2013) define resource mobilisation as the alternative word for fundraising. Fundraising is the process of getting a broad range of resources for an organisation to enable it to attain its planned objectives.

In this study, the terms ‘generating’ and ‘mobilising’ resources are used interchangeably and refer to activities and initiatives of the school which result to additional resources on top of the budget allocated to the institute. Mobilising or generating resources also refers to the potentiality of a school in acquiring or adding tools and facilities required in performing to their satisfaction even in time of crisis. In sum, these are alternative ways of getting resources needed by schools for their operation to achieve goals and objectives.

### **2.2.6 Efficiency**

Efficiency is defined as obtaining the maximum possible output or performance from a given expenditure of resources (Hanushek, Rivkin & Taylor, 1996; Wyatt, 2006). Chaffey (2014) defines efficiency as “doing the thing right”. This helps one see whether processes are completed using the least resources and in the shortest time possible. Olum (2004) concurs that efficiency is the achievement of the ends with the least amount of resources. Sigilai (2013) also describes efficiency as the achievement of the ends with the least amount of resource.

Seiler, Ewalt, Jones, Land, Olds and Young (2007) explain that the components of efficiency imply that schools are eliminating waste to the fullest extent possible. An efficient educational system is one in which the mix of resources or inputs used are those best suited for the educational needs of the learner, the school and the district. Cornali (2012) adds that efficiency indicators are economic in nature and in terms of: public expenditure, private expenditure, total expenditure, expenditure per learner, cumulative unit expenditure and public spending on education in relation to Gross Domestic Product (GDP) and to total public spending. According to Anyadike (2014) having good inventory control and adopting sound methods of condemnation and disposal may improve the efficiency of the organisation and also make the working atmosphere healthy in any type of organisation.

According to Review of Efficiency in the School System in Canada (2013) there are seven key characteristics identified for the most efficient schools. a) Employ or have access to a skilled school business manager who takes on a leadership role. There is strong evidence that the employment of a high quality school manager can enable schools to save significant amounts

of money and the manager plays a prominent role. b) Make good use of financial benchmarking information to inform the school's own spending decisions. Schools that use benchmarking information to compare themselves to similar schools, and who act on what they find, manage to generate significant savings. c) Make use of school clusters, sharing expertise, experience and data, as well as accessing economies of scale when making shared purchases. There is clear evidence that schools can drive far reaching efficiency savings by working together with other schools. d) Deploy the workforce effectively, with a focus on developing high quality teachers as an important feature of successful education systems. Most efficient schools invest a great deal of effort to get the staffing structures right, recruiting the right people and ensuring that they are continually supported to improve. e) Make use of evidence to determine the right mix of teaching and education support staff. High attaining schools tend to spend proportionately more on teaching staff and proportionately less on education support staff than their lower attaining peers. This is still the case even when comparing schools in similar circumstances and with similar learner intakes. However, the way schools deploy support staff is also important, with the potential to have a significant and positive impact on learner outcomes if used in line with the evidence on what works. f) Manage down back office and running costs. There remains considerable variation in the amount that similar schools spend on running costs, such as energy or premises. The most efficient schools drive these costs down through improved procurement practices and a greater focus on value for money. g) Have in place a strong governing body and leadership team that challenges the school's spending. A governing body that is willing to challenge schools on their use of workforce, their use of benchmarking information and the other aspects drawn out above, is a vital factor in encouraging greater whole school efficiency. Where this is supported by a strong leadership team that is open to and welcoming of this challenge, schools can make significant efficiency gains (Review of Efficiency in the School System, Canada, 2013).

Cornali (2012) holds the same opinion that whole school efficiency is achieved by taking all the resources that a school has and deploying them in the way that best supports learner outcomes. This implies that all schools that practice efficiency are likely to use resources in the best way that supports their learners' outcomes and minimise wastage possible. In this study, efficiency refers to applying the limited resources in an economic manner to achieve the highest learner outcome and applying improved procurement practices in schools.

### **2.2.7 Effectiveness**

Effectiveness is the ability to achieve stated goals (Scheerens, 1999; Ninan, 2006; Seiler et al., (2007); Sigilai 2013). Chaffey (2014) adds that effectiveness is “doing the right thing” meaning conducting the right activities and applying the best strategies for competitive advantage. Competitive advantage is the superiority gained by an organisation when it can provide same value as its competitors but at a lower price, or can charge higher prices by providing greater value through differentiation (Chaffey, 2014). In other words, it is producing the required output and thus meeting the organisation’s goals. Cornali (2012) states that effectiveness indicators refer to the output of the education system in terms of observable products and to the outcomes achieved that is, the degree to which goals are achieved. Seiler et al. (2007) argue that, unless effectiveness is linked to expenditures, it is impossible to know whether the same or better performance could be achieved with lower expenditure. Schools that improve test scores from year to year may be considered effective. A school can be effective for some learners than for others and that their effectiveness can vary across curriculum areas and over time, thus, school effectiveness is a difficult and multifaceted concept.

Nevertheless, Cornali (2012) simplifies the concept and say ‘it is the school system’s ability to achieve instructional goals in teaching general and abstract knowledge needed to master languages, symbols, images and concepts; transmitting cognitive methods and thought patterns’. Secondly, it is the ability to achieve assigned aims by making the best use of all resources allocated. Both efficiency and effectiveness have an internal and an external dimension. Internal effectiveness and efficiency are estimated within a given setting. For example in education, they can concern the impact of a particular teaching method on learners in the same institution or the specific use of certain resources in the same educational sector. External efficiency or effectiveness is extra-sectorial, as they extend comparison beyond the setting in question. Educationally, they relate to the impact of a certain type of training in several sectors of the economy, or outcomes of school tracks in terms of individual costs and benefits. Therefore, profitable use of resources depends on, first: the allocative efficiency which regards how resources are earmarked (human resources, tangible resources and technological facilities). Second: technical efficiency which regards the optimal use of the resources (Cornali, 2012). Hence, effectiveness is dictated largely by the operational state of resources or facilities.

This implies that school managers should be strategic in accomplishing as much as possible organisational goals with minimum resources available. This can help determine whether schools are run cost effectively or not. In this study effectiveness refers to the ability of a school in applying certain strategies in what they can produce better, the resources, in the verge of attaining stated the educational goals and objectives.

### **2.3 Resource Provision in Swaziland Schools**

The WB report (2010) points out that school inspectorate reports for the period 2004 to 2008, documented poor maintenance and up-keep of school infrastructure. This showed severe shortage of school furniture. Most schools lacked physical facilities and equipment required to effectively deliver the secondary school curriculum. The unavailability of facilities included special teaching rooms' required such as for Design and Technology, Agriculture, Home Economics, Computer Studies, Libraries and Multi-media Centres. 'Because most school infrastructure is provided by communities to very uneven standards, available structures do not easily lend themselves to adaptations and/or renovations to suit practical subjects' (WB report, 2010). Thus lack of accurate information on resource provision makes it very difficult to plan for provision and to track equity in the provision of such educational resources.

ESSP (2010); WB report (2010) and EDSEC Policy (2011) all report that the MoET made education free for all primary school going age children. Also school fees were standardised at secondary school level. This suggests that a proper mechanism for selecting vulnerable and poor households and children was needed. Liaising with development partners and involving communities in the development of education were efforts aimed at combating poverty and providing relevant teaching and learning materials and equipment. However, all these effort were not successfully achieved due to lack of proper structures in the Ministry to mitigate resource mismanagement in schools. Further, the WB report (2006) notes that formal management training was not a pre-requisite for promotion to head teacher or head of department posts. Moreover, schools received little or no support from Regional Education Officers (REOs). This implies that there is no systematic approach to monitoring administrators' accountability for the learning of learners and other resources. School managers do not have any performance targets to work towards and to be evaluated against. This implies that school leaders may not have the competencies required to link their schools with the outside world. A combination of these factors makes head teachers' appraisals a bit of an inconsistent exercise and one with no structured follow up.



The WB report (2010) further shows there was a decline in education for Swaziland spending as a percentage of total government expenditure from 21 percent in 2000 to 17.6 percent in 2007 and projected an increase to 19.2 percent in 2009. The report shows spending on secondary education as a proportion of the sub-sector revenues; the public spends less on secondary than on primary education. Public spending accounted for 74 percent of total revenue. Public subsidies for the poor accounted for 7 percent of total revenue. Around 30,000 or 40 percent of students received an average subsidy of E1500, as shown in table 2.1.

**Table 2.1: Financial Resource Information on Secondary Schools Spending**

<b>World Bank Report on Swaziland Financing of Secondary Schools in 2007</b>		
	<b>E</b>	<b>% of Total</b>
Financing per pupil by source		
Public spending	6,895	74.4
Private spending (fees)	2,376	25.6
Total	9,271	100.0
Teacher cost details		
Teacher count (A)	4,146	
Average teacher pay (B)	97,471	
Enrolment (C)	74,429	
P/T ratio (D=C/A)	18.0	
Financing per pupil by category		
Teachers (B/D)	5,430	58.6
Non-teaching staff	86	0.9
Non-personnel recurrent	3,155	34.0
Capital expenditure	600	6.5
Public expenditure on pupil subsistence	0	0.0
Total	9,271	100.0
<i>Source: World Bank Report 2010</i>		

The WB report (2010) also indicates that between 2004 and 2008, junior and senior secondary enrolments increased by 19 and 24 percentage points respectively. This expansion notwithstanding, access was still low to support Swaziland's growth acceleration and to

empower the poor. A staggering 74 percent and 88 percent were out of junior secondary and senior secondary levels respectively. These levels of access are low to support Swaziland to attract high-end Foreign Direct Investments (FDIs), improve productivity and be globally competitive. Secondary school books were still privately provided by parents through fees. It is assumed that students have all the prescribed books but this is highly unlikely given cost implications for most students. The WB report (2006) documents that schools often owed bookstores because of difficulties in collecting fees. Beyond the process of prescribing books, and provision of other material resources is mostly unguided.

The WB report (2010) further reveals that due to lack of a book policy, the management of secondary school book provision varies widely across schools. Some schools annually rent textbooks to students for a quarter of their cost yet others require them to buy books. For rented books, inspectorate reports showed that schools varied widely in their ability to collect books at the end of each year. “Failure to collect books artificially shortens the life span of the books and increases replacement costs” (WB report, 2010 p. 42). Some schools order books directly from bookshops yet others provide students lists to buy directly. The unevenness in provision and management as well as problems with fee collection suggests that accurate data is required on the state of book provision. Also, beyond provision of resources, inspectors’ reports are very scant on the effective use of books and instructional materials other than just highlighting the lack of teaching aids in some schools. Yet effective use of resources is really what determines the impact of books and instructional materials on learners’ performance. Currently secondary school books are imported and are therefore very costly. A recent initiative to develop books locally is expected to bring down costs.

The NETIP (2013) reports that the Swaziland Human Development Index (HDI) had deteriorated and had pulled down by a combined low life expectancy at birth and the low combined Gross Enrolment Ratio (GER) for primary, secondary and tertiary education in 2012. In addition, the Government’s national budget for the financial year 2013/2014, announced in Parliament on 22 February 2013, continued to allocate MoET a significantly larger budget share than was awarded to any other Ministry, with MoET total equal 2.17 billion Emalangenji (E), plus an additional E126.3 million for capital expenditure. This in all gives 18 percent of the total national budget (excluding statutory), however, the nominal MoET budget increase from the previous year, E150 million, was only barely sufficient to keep pace with the rate of inflation, and with a significant increase in total enrolments in the education and training

sector, must represent a decline in expenditure per learner in real terms. The NETIP (2013) shows that a budget allocation to improving access and equity, improving quality and relevance, improving delivery and efficiency in secondary education amounts to E722,845,444 (NETIP, 2013 p. 13). In such a situation this study sought to investigate improvements done in the way educational resources are generated and provided in schools and verify policy implementation in schools regarding resource sustainability.

The Development of Education National Report (2008) highlights that the MoET provides learning materials (textbooks and stationery), furniture, equipment, construction of physical structure required for the execution of education in schools and teacher training institutions throughout the country. The challenge is that the increase in primary school enrolments is not matched with the increase in infrastructure at secondary school level to absorb pupils from Grade 7. The funds allocated for educational grants do not match the number of children who genuinely need the grant. The bursary funds do not cater for all the fees therefore, learners are sent home for outstanding fees or top-up fees.

The number of resources provided to schools leaves a lot to be desired. The question is, are they fairly distributed to cater for all learners or are they well maintained and managed for the sustenance of education in the country. In this study I sought to investigate the availability of physical and material resources in schools. I also sought to examine the strategies for generating resources that can help schools function efficiently effectively in the dynamic environments they operate in.

## **2.4 Some Relevant Studies and their Implications**

In this section I focus on relevant studies conducted regarding resource generation and management, and the implications they bear on the present study. While I allocate this section, it is important to note that all sections in this chapter also relate to empirical evidence related to resource generation and management globally.

The issue of educational resources is being reflected upon in many parts of the world, United States of America (Miles and Baroody, 2012), London (Glover and Levacic, 2008), Canada (Seiler, et al., 2007; Austria (Hinum, 1999), Nigeria (Ehiamentolor, 2003, Olatoun, 2012, Akinfolarin, Ajayi and Oluruntegbe, 2012); Kenya (Wanjiku, 2013) among others.

Ajileye and Ikegwuru (2011) conducted a quantitative study on financial resource management capacity of public administrators in Ondo State, Nigeria. The focus of the study was on principals' capacity on financial management, capacity for fund sourcing and school budgeting. They found that administrators' ability to source funds to complement what government was giving to schools had led to the accomplishment of other school projects like improving the school farm, developing and buying sports equipment. The conclusion drawn was that principals were able to use funds generated from other sources to improve the school facilities. This was through their capacity of financial accounting in preparing and executing the school budget for running programmes. On the other hand, there were no regular budgeting reviews and auditing in schools. This showed a lack of proper financial resource management in schools. Therefore, the implication for the current study was that there is need for school administrators and teachers to be equipped with financial management skills in order to procure resources and effectively run schools.

Motsamai et al., (2011) conducted a related but qualitative study on policy and practice in financial management in Lesotho schools. The focus was on principals' financial management practices in schools. They highlighted the deficiencies and problems regarding the implementation of policy. The study found that there was discrepancy between policy and school financial theory. Extensive directives on financial planning, organisation, problems regarding budgeting, the collection and recording of school fees and lack of administrative support abound. Further, there was no clear policy directive on financial leadership and control reflected by unsatisfactory financial leadership and arbitrary auditing practices. The findings of the study repudiated the argument that mere existence of a financial policy can lead to sound financial management in schools and consequently quality education. The conclusion was that budgeting in schools was done in a careless fashion or was not done at all. They also concluded that there was limited involvement of stakeholders in the budgetary process, due to lack of knowledge and apathy. These findings resonate with the goings-on in Swaziland (Vide Chapter 1, Section 1.3) where many school administrators were charged for dishonesty in using school funds (Shongwe, 2015); and others charged for mismanagement of school resources (Simelane, 2015). This implies therefore, that there is dire need for school managers' and teachers' empowerment in resource generation strategies and policy implementation to the same regard in order to improve school management.

In a study on school record keeping in secondary schools, Fasasi (2011) focused on the keeping of school records as a strategy for school management and as a tool for attaining the school objectives. Fasasi (2011) recommended that schools should hold seminars and samples of all records be made available for teachers to see. They added that records should be kept honestly, safely, accurately and confidentially; and that planning done with falsified records cannot be accurate and would not augur well for the nation's educational development. Government and school authorities should provide facilities that are required for modern methods of record keeping. Storage facilities will enhance safety of the records from theft, destruction, mutilation and accessibility to unauthorised persons. Fasasi found that school records were meant to enhance the performance of administrators. When records are kept and properly utilised, the execution of management functions is likely to be easy and effective. Onuoha-Chidiebere (2011) shares the same sentiment that proper record keeping of statistical data of teachers and learners would enhance the management of resources; and that improvisation would help reduce lack of teaching resources and improve in the acquisition of skills and participation. Therefore in this case, proper record keeping is needed for a proper track of facilities and to keep the school up-to date. Issues of over-supply or lack of resources can be easily tracked thus reducing wastage in schools.

Bakwai (2013) investigated the availability and supply of resources in the education sector of Nigeria. The focus was on challenges to effective educational resource planning. Emphasis was on educational planners to ensure that the available educational resources were utilised to meet the demand of education. In addition, planners were to ensure that financial resources and shortage of certain resources that bedevil the education sector were forecast, since resources are vital to the education sector. This would give quality assurance in the education industry. Bakwai (2013) recommended that all educational planners should be professionally trained to achieve prudence in educational resource planning. They should plan for physical resources like libraries, laboratories, workshops to be of access to learners. The conclusion was that educational planners needed to be well informed of the existence of educational resources and know how to plan the use of those resources in education. Planners should be able to adopt a classificatory method that is suitable to the level of education they are operating. Further, planners should raise efficiency and productivity in the education system so as to contribute the most to national development within the limited resources available. Alaka and Obadara (2013) fully agree that there is need to provide necessary infrastructure to improve scholastic performance of students. For the current study, there was need to investigate the importance of

resource availability in schools as related to quality education needs of the country and to examine the expertise of school administrators in executing their management functions.

Agabi (2010) conducted a study on prudential resource management in education. The focus was on the problem of scarcity of resources; the decline in funding from federal government and the untenable situation of compulsory and free Universal Basic Education (UBE) programme. Observation and document materials methods for facts gathering were used. The study found that education managers lacked training which inhibited them from adequate knowledge of relevant resources for particular education programmes. Recommendations were that there was need for the exploration of non-governmental sources of funding, and the application of prudent measures for managing existing educational resources. In addition, regular supervision and inspection to identify area of resource need, maintenance and misallocation and correct the hitch were suggested. These were to ensure a general distribution of resources that was fair, to avoid rendering some resources redundant and inadequate resource distribution of resources in other schools. The EDSEC Policy (2011) shares the same opinion that the provision of school infrastructure and facilities should be fair to all schools regardless of their location. In this case this implies that all schools should be allocated all facilities and equipment in order to achieve academic excellence and set goals. Thus there is need to investigate schools' act in the use, management and maintenance of resources to avoid wastage.

Afolabi et al., (2008) investigated the allocation and management of resources for sustenance of free qualitative secondary education. The focus was on identifying the criteria for allocating resources to secondary schools and to ascertain the extent to which resources were allocated and managed towards the sustenance of free, qualitative secondary education. The findings indicated that it was necessary for the secondary school system to be run cost-effectively. They also found that there was lack in prudent management of human, physical, material and financial resources in order to sustain a free, qualitative secondary education. These findings agree with those of Agabi (2010) that cautious management of educational resources were very essential. Afolabi et al., (2008) emphasised that as resources are scarce and limited in supply, their management demands some skill, training, careful planning, supervision, co-ordination and some degree of control in schools. The expectation of concerned stakeholders was that a school should make judicious use of the scarce resources in ensuring that they give the greatest return and ensuring efficiency of the school system. They contributed that the sustenance of

qualitative education depends on adequate provision of physical and material resources in schools. In the same way, this study investigates the management functions (organising, planning, supervision, leading, co-ordination and control) and skills that school managers show in administering the educational resources in their custody. In addition, stakeholder involvement in educational resource generation and management were worth noting.

Asiabaka (2008) in a study on effective facility management in schools reports that the actualisation of education goals requires maximum utilisation and appropriate management of education facilities. Also advancement in technology necessitate that schools should adopt modern methods of resource management to improve the quality of teaching and learning. The physical environment is a major determining factor in the attainment of school objectives. Further, schools should carry out comprehensive assessment of facilities to determine areas of need to assist in policy formulation relating to resource management in schools. According to Olatoun (2012), many countries of the world view education as a good investment for national development because it is expected to produce the required quantity and quality of human resources for economic growth using the right mix of inputs. This finding is supported by Oni (1995) who notes that secondary education, like any other organisation, receives inputs from its environment, converts or processes it afterwards, and discharges the output to the environment from where the inputs were obtained. Therefore, in this case, it is important to equip schools to achieve quality and efficiency in education using the limited resources, but yield the highest returns possible. The manner in which scarce resources are allocated, distributed, utilised and maintained is important, hence the current study.

Owoeye and Yara (2011) carried out a study on school facilities' provision and academic achievement in secondary schools, Uganda. The focus was on the provision of facilities in relation to academic performance of students in agricultural science. The results showed that there were no significant differences in the performance of students between rural and urban secondary schools in terms of availability of laboratory facilities, availability of textbooks and academic achievement of students. The government had provided adequate material resources to rural and urban locations to enhance teaching and learning processes. The parent teacher association (PTA), philanthropists and other charitable organisations were also implored to complement the effort of the government to boost the performance of students. The study concluded that school facilities were the most potent determinant of academic achievement. Facilities in terms of qualifications of personnel, who are directly involved in the pedagogy;

laboratory, library, school buildings, chairs/tables, administrative blocks, chalk-board, school maps and the likes were very crucial to high academic attainment. The study indicated that achievement is a function of availability of facilities to students in unity schools compared with public schools. Experience was regarded as an important factor in achieving academic excellence, in the study. There were some facilities that could be improved by the teachers and the students in order to facilitate teaching and learning hence such facilities should be provided by the teachers and students respectively. Agreeing to this, Olatoun (2012) succinctly puts it that the success of any secondary school depends upon resources available to it. Money is important in this respect because with it, all other vital elements in the school can be obtained, for example, buildings, purchase of equipment, payment of teachers' salaries and allowances, and operating expenses. Afolabi et al., (2008) also remarked that money is needed to maintain plant, keep the services going, buy text books, establish new buildings, buy science equipment and maintain other services that are required by a school to carry out its functions as an educational institution. Thus in the present study I was interested in exploring the capabilities of administrators in generating additional resources from sources other than those provided for by government.

Olangunju and Abiona (2008) conducted a qualitative investigation on the production and utilisation of resources in biology education in secondary schools. The focus was on the utilisation of and production of material resources. They found that a few teachers generated material resources. A few teachers sometimes used biology equipment such as microscope, magnifying glasses, hand lenses, preserved specimen, chemicals, measuring cylinders, wall charts and models. This implied that biology material resources were available and used in schools. They also found that male teachers' perceptions in the utilisation of resources were higher compared to that of female teachers. Females perceived low the utilisation of material resources. Therefore, they recommended the need for training and retraining of all biology teachers especially the females on improvisation and utilisation of material resources. Their study concluded that biology teachers needed to improvise, produce and use both material and ideas to aid instruction. They added that issues which could aid adequate training of teachers on production and utilisation of resources were to be highlighted in teacher education curriculum and instruction. They also concluded that material resources were presented as indispensable tasks in the scientific enterprise to enrich the teaching and learning. This finding is similar to that of Bakwai (2013) which points out that resources can only be utilised when



they are available and that there should be investment in educational institution for proper utilisation of material resources and skill for effective teaching.

Akinfolarin et al., (2012) conducted a similar study to the above, on appraisal of resource utilisation in vocational and technical education in selected colleges of education in Southwest Nigeria. Their focus was on availability and adequacy of resources in colleges identifying the utilisation of space and physical resources in the selected colleges of education. They used a descriptive survey type of research. They found that in the Fine and Applied Art Department, the calliper metal was inadequate. The Technical Education Department was inadequate with shaping machines, drafting machines and computer aided drafting. The study concluded that most of the required resources were available and adequate. The non-availability of some resources attributed to lack of funds or the priority attention of the management staff towards the department or the school concerned. That situation may not allow for effective teaching by the lecturers and learning outcomes of students. So, adequacy of resources could be the reason for good learning outcome particularly if utilised well. Thus in the present study I sought to investigate schools' priorities regarding the availability and management of physical and material resources in schools under each department for teaching.

In a study on challenges to effective management and utilisation of teaching resources, Onuoha-Chidieber (2011) examined the meaning and categories of teaching resources. Emphasis was on the challenges affecting the effective management and utilisation of teaching resources. She discovered that schools failed because of poor management, the leadership were untrained and that policies were poorly formulated and never implemented. The study concluded that the use of resources increase efficiency on the part of the teacher and concretise what is learnt on the part of the learner. Therefore, teachers were encouraged to attend professional development programmes like workshops, seminars, conferences, to increase their knowledge on innovative teaching and learning resources.

According to Olatoun (2012), in a study on resource utilisation and internal efficiency, physical resource utilisation had the highest internal efficiency. Financial resources utilisation and human resources utilisation showed a positive relationship with internal efficiency. There was no relationship between financial resource utilisation and repetition rate, dropout rate, failure rate and graduation rate in schools. The study concluded that efficiency of public secondary schools was far below the expected output. The education system was characterised with

wastages which made it less efficient. The expectation of all stakeholders is that learners are to be trained to be useful members of the society with minimal wastage. The fact that learners repeat, dropout or fail out of the educational system without success continues, to be a huge wastage cost on all stakeholders. Further, the findings of the study showed some socio-educational implications. These were that the deplorable situation of physical facilities in schools would reduce access, participation and retention since they were among the major resources that constituted to educational development. Bridging the educational gaps for the dropouts implied additional costs on the part of the government and affected the attainment of education for all and millennium development goals for the country. In this case an exploration of the relationship between physical and material resources and internal efficiency in schools operation may be uncovered.

Sigilai (2013) conducted a study on factors influencing academic achievement in public schools in Kenya. Focus was on influence of academic staffing and physical facilities on learners' academic achievement. Findings were that learners' academic achievement was hampered by the absence of sufficient, qualified teachers and adequate classrooms with the required numbers of desks and chairs to accommodate the required number of learners. Inadequate number of teachers, textbooks, instructional materials, classrooms, desks and chairs lead to poor learners' academic achievement. Highlights were laid that learners' academic achievement depends on important educational inputs. The improvement of facilities and addressing them in schools could help realise high academic achievement. This implies that for a curriculum to be well implemented there has to be adequate material and physical facilities that can aid in the achievement of better learning outcomes. This justifies why in this study I investigated factors that affect resource generation and management in schools.

## **2.5 Generating Resources in Organisations**

In this section I focus on resources generation and management in organisations. The discussion is first centred on resource generation and later on resource management.

### ***2.5.1 Resource Mobilisation in Organisations***

Zhimin et al., (2013) argues that where an institution cannot raise adequate resources, it means it cannot fulfil its mission. Therefore, it is up to the leadership to ensure, in some way or another, that resources are available. Consequently, attention should be given to establishing a secure and sustainable funding base to the design and delivery of effective services. Resource

mobilisation includes non-financial resources and those that can be generated from other sources. So, broadening the resource generation base and generating additional resources can go a long way in enhancing the sustainability of schools even in harsh socio-economic and increasingly competitive environments. Therefore, resource mobilisation is the enabler of an activity that satisfies the resource need and the giver of that resource when it has been effectively used. Resource generation is all about building relationships with donors, whether individuals or major corporations (Zhimin et al., 2013). Downes (2007) shares the same sentiment that broadening the fundraising base by bringing in other donors and by generating other sources of money can reduce dependency in schools. Developing a plan or strategy for resource mobilisation can lead to creative efforts in using local resources to gain support for an organisation. Multiple sources of funding can increase the organisation's independence and flexibility to implement programmes and reduce reliance on external funding. In view of this, then it becomes a necessity that schools need to come up with alternative ways and means of income generation in order to sustain their operations and activities.

Downes (2007) explains that an entrepreneurial approach in resource mobilisation is an instrumental factor that is becoming more helpful for organisations. Most non-profit making organisations have relied too much and for long on grants such that this tendency has discouraged an entrepreneurial approach. Therefore, a definite change in approach and change in perception is needed by leaders of non-profit organisations like schools if they are going to consider seriously the variety of possible income generating possibilities. This change entails re-examining; overcoming prejudices; entrenched beliefs; and embracing a business-minded mindset and approach. But this is something that most leaders of non-profit organisations whose background is academia, social work and the church are not experienced in (Downes, 2007).

Cuthbert (2011) also observes that resource mobilisation can facilitate the flow of resources from various sources and catalyse the flow of additional resources from official and private institutions. Projects and programmes that are too large to be handled by one funding agency, mobilising co-financing from various funding sources can help meet these large resource requirements. Also, resources can be in any form such as finances, technology, manpower both skilled and labour, knowledge and information. Monetary resources include financial contributions from communities, grants from local authorities and governments, donations from individuals and bank loans. The in-kind resources comprise of community's contribution

in terms of labour, in-kind material donations by community and other donors, such as building material, machinery, and in-kind intellectual services such as know-how, monitoring, impact assessments, and space such as office space (Cuthbert, 2011). Therefore, creating an organisational culture that is flexible helps an organisation in looking for ways to maximise resources, in finding innovative ways of raising funds or carrying out programmes in challenging environments. This being the case, attention needs to be paid to the development of personal relationships between donors, recipients and the environment. Therefore, in this study I attempt to find out how schools generated educational resources and analyse the challenges they face in resource mobilisation. Thus in this study I sought to understand the extent of sourcing additional resources in schools.

### ***2.5.2 Factors Hindering Resource Mobilisation***

According to Zhimin et al., (2013) resource mobilisation is not an easy task, more so in the developing world, particularly in Africa, which is not as well-developed as the west. Thus one of the biggest challenges in this area is the process of developing the relevant culture and practice as well as appropriate methods and techniques that work well in the local context. Unlike in the west, there is critical lack of experience, good practice, published case studies and practical training and support services (McCarthy & Zald, 2001).

Zhimin et al., (2013) denote that looking for and developing alternative sources of funds is not an easy task, but instead, it is easy to slip back into previous deeply entrenched attitudes and ways of doing things. Therefore, it is wise to undertake a serious strategic planning exercise before initiating alternative resource mobilisation. But even after income generating activities have been initiated, there are still other hurdles to be overcome. One major hurdle is the lack of a clear legal framework and guidelines on how non-profit making organisations can legitimately engage in income generating and profit making activities (Zhimin et al., 2013). According to Downes (2007) non-profits do not exist to make profits as many of them disagree with the traditional 'bottom-line' thinking of the for-profits world. Consequently, many non-profits are wary of engaging in such activities lest they be accused of breaking the law. Further, non-profit institutions may fall into the danger of losing their tax-exempt status and privileges on donated income. Many such organisations are sensitive to and would want to avoid the negative perception that they are actually profit making ventures working under the cover of non-profit. That is the reason why there is need for more training in resource mobilisation to enable Ministry to develop and diversify. I thus sought to find strategies that may overcome

challenging factors faced in resource generation in order to take full advantage of school efficiency and effectiveness in operations.

### **2.5.3 Resource Mobilisation Strategies**

Castillo (2014) says that the viability or survival of an organisation depends on its ability to adapt to changing trends and its willingness to explore alternative sources of funding. In addition, schools and non-profit organisations should realise that they need to wean themselves away from once-reliable sources and learn how to cast a wider net to draw a bigger variety of donors. Since schools are social organisations and have a need of various forms of resources, there are some strategies for resource mobilisation they can explore. Zhimin et al., (2013) suggests some strategies for resource generation. *Close friends* – identifying some close friends who have ties with institutions, both locally and overseas; and encouraging sale of services and products which meet the needs of the school and the local community. An organisation can therefore establish income generating activities and viable investment projects. *Wills or legacy fund raising* – a will is a piece of paper, legally recorded and witnessed, which testifies to the owner's desires. This is another long-term fundraising strategy, worth considering in institutions that is, giving through wills or legacy as a means for fundraising. Downes (2007) supports that in Australia this is the number one income generator for non-profit organisations. Although a small measure of success has been achieved in African countries, but it is still an untapped potential as many die interstate (without a will). This implies that each institution has to have a unique set of assets upon which to build its future. *Financial and non-financial strategies* – as schools identify and inventory the range of financial and non-financial resources of the individuals, community and local institutions. The non financial resources include skills, talents and capacities, thus mapping can help an organisation to consider alternate and efficient resources for any proposed project (McCarthy and Zald, 2001). *Donors/Philanthropist* – the key elements that strengthen resource mobilisation efforts include having a clear sense and commitment to the organisation's vision and mission. Effective management and leadership in institutions should ensure among others that the accountability and transparency has solid reputation, credibility and positive image. The ability to attract, create and sustain new resources should be key in organisations (Zhimin et al., 2013). These should ensure some degree of success in applying and implementing resources mobilisation strategies in schools.

Yun (2010) adds other strategies for generating educational resources. *Grants*, although time-bound, offer multilateral to medium-term funding and bilateral agreements. *Gifts* are

unrestricted; they can lead to individuals, groups' endowments and are medium-to-long term funding. *Earned Income* is short-to-long term funding, from sale of products, fee for service or interest income. There is value in professionalising existing earned income activities, to the point where they could significantly impact an organisation's financial viability. Yun (2010) encourages institutions that rather than focusing all energies towards bagging large grant amounts from big funders, there is value to develop and following made up of individual donors, corporations and groups with various degrees of affinity for the organisation and school programmes. The support may come in the form of large or small gifts, could be unrestricted, could be one-time donations, or could lead to long-term funding. Therefore, an organisation in search of unrestricted funding would do well to expand their base of individual givers. These alternative approaches encourage a healthy mix of funding sources, thereby spreading the risk in the event that one source dries up (Yun, 2010).

As I indicate in other sections, in this study I studied what schools have for the mobilisation of educational resources in order to survive in the harsh socio-economic and competitive environments they live in.

#### ***2.5.4 Some Relevant Theories of Resource Mobilisation in Education Management***

In this section I briefly elucidate theories that explain organisational responses to resources mobilisation. Other key theories are discussed in detail in Chapter Three where I explain the theoretical framework of the study. As discussed earlier, financial resource (mostly in terms of expenditure per learner) from the principal benefactors (government) is declining in Swaziland schools and across Sub-Saharan African countries (World Bank, 2010). Therefore, it is important to understand how schools as organisations can obtain resources by utilising certain speculations for their survival.

*Resource mobilisation theory (RMT)*: this is a major sociological theory in the study of social movements which emerged in the 1970s. It stresses the ability of an organisation's members to acquire resources and to mobilise people towards accomplishing the institution's goals (Zhamin et al., 2014). The RMT sees schools as rational social institutions, created and populated by social actors with a goal of taking a certain decision and action. According to the resource mobilisation theory, a core professional group, the departments in this case, an organisation works towards bringing money, attention of the media, alliances with those in power, and refining the organisational structure (Zhamin et al., 2014). Thus, social institutions like schools

need the above mentioned resources to be effective because dissent alone cannot generate social change in an organisation.

This theory assumes that individuals are rational thus they can weigh the costs and benefits of an activity and act only if benefits outweigh costs. When goals of an organisation take the form of public goods, the free rider dilemma has to be taken into consideration. Additionally, schools are social movements that are goal-oriented, so the planning and organisation of resources is very important. Planning and organisation in this case means the interactions and relations within the social movement organisations (SMOs) and other organisations (other SMOs, business and industry, governments, etc.). Therefore, the efficiency of the organisation infrastructure is a key resource in itself (Zhamin et al., 2014). In this study, I investigated the techniques in which schools acquired resources and sought to establish relationships with their environments and in the way in which they applied rational decisions for the effective and efficient operations of the institutions.

*Resource dependence theory (RDT)*: this theory provides useful conceptual tools for understanding organisational responses to financial challenges or austerity (Gebreyes, 2013). This theory argues that no organisation is completely self-contained. An organisation's survival is thus dependent on the extent that it is able to acquire and maintain resources. The need to acquire resources creates dependencies between organisations and their external units and the scarcity of resources determines the degree of dependency. According to RDT, when resources are in a state of short supply, organisational stability is threatened and organisational vulnerability occurs. Under such circumstances organisational efforts must be directed at regaining stability, at removing the source of the threat to the organisation's operation (Gebreyes, 2013). Gebreyes (2013) also adds that this theory suggests that no firm can secure the resources and capabilities required to survive without interacting with firms and individuals beyond their boundaries. Therefore, the resource recipient organisation has to identify key stakeholders and thus manage stakeholder relationships to ensure survival in that environment. This RDT says that it is not easy to understand organisational structure or behaviour without understanding the context within which it operates. So firms are engaged in a mix of cooperation and competition. Wangenge-Ouma (2011) suggests that the resource dependence perspective shows that organisations can manage resource dependence difficulties arising from state funding by competing for resources from the market. As schools can operate in multiple

markets, they may be able to establish multiple exchange relationships for mitigating disruptive resource instabilities through developing multiple revenue streams (Wangenge-Ouma, 2011).

Gebreyes (2013) suggests two adaptive responses for the development of multiple revenue streams as stated by the RDT. One, schools can adapt and change to fit environmental requirements. Two, they (schools/universities) can attempt to alter the environment so that it fits their capabilities. Thus the main contribution of RDT is the detailed analysis of adaptation strategies. These include merging with other organisations, diversifying products and services, co-opting/interlocking directorates, and/or engaging in political activities to influence matters such as regulations (Gebreyes, 2013). So school managers become more important because they are mainly responsible for the development and implementation of strategies that help effect dependency relationships with the environment. The implications for policy dialogue are noted at regulation, preferably a policy on funding and resource allocation mechanism levels within schools.

## **2.6 Managing Resources in Organisations**

In this section I discuss issues of educational resource management including management skills, challenges, strategies and principles in resource management, as well as theory encompassing resource management.

### **2.6.1 Management Skills**

Olum (2004) suggests four skills needed by managers: technical, human, conceptual and design. *Technical skill* means knowledge of and proficiency in activities involving methods, processes and procedures. It involves working with tools and specific techniques. *Human skill* is the ability to work with people. It is cooperative effort, teamwork and it is the creation of an environment in which people feel secure and free to express their opinions. *Conceptual skill* is the ability to serve the “big picture”. It is about recognising significant elements in a situation and to understand the relationship among elements. *Design skill* is the ability to solve problems in ways that will benefit the enterprise. One needs to have a skill of a good design engineer in working out a practical solution to a problem in the light of the realities they face

Asiabaka (2008) emphasises that, for resources planning and management to be achieved, team efforts of resource planners and capital budget analysts, administrators, managers, academic staff, fiscal and institutional research personnel are advocated for. With the increases in school



enrolment, increasing number of academic programmes and limited resources, flexibility must be an integral part of the planning process. Facilities should be established such that they serve new functions in future. It therefore seems very vital to show a certain level of skills in the management of resources for efficiency and effectiveness. In this study I consequently sought to investigate the same in terms of flexibility among schools in generating and managing educational resources.

### ***2.6.2 Some Principles and Strategies of Resource Management***

Olum (2004) defines principles in management as fundamental truths explaining relationships between two or more sets of variables, usually an independent variable and a dependent variable. Adding, Olum states that principles may be descriptive or predictive. That is, they describe how one variable relates to another or what will happen when these variables interact. Hardwick, Khan and Langmead (1999) point out that the subject of resource allocation and resource scarcity is the central challenge in economics. Every society has the challenge of limited or declining resources which have to be used more efficiently and effectively. Agabi (2010) and Crown (2012) also argue that schools have a task to manage and administer all school resources entrusted to them with prudence. This means, administrator plays a vital role in setting the direction for successful operations of the school. He/she is responsible for exercising the expertise in management and leadership of the school affairs. He/she is responsible for expenditure estimates, day-to-day decisions on spending and weekly monitoring of expenditure to make sure that the school budget is not exceeded. He must ensure that full financial records are kept in relation to all school funds and that these records are presented regularly to the board of governors in keeping with the requirements of the guidance issued by the funding authority (Crown, 2012). Therefore, it is very important for schools to be prudent, strategic and wise in managing the resources available to them.

According to Asiabaka (2008, p. 19) the following are principles that can reduce costs of facilities management if applied well.

- a) Getting professional advice before buying a site; eliminating waste space, especially in corridors and other non-instructional areas.
- b) Carefully selection of building materials.
- c) Using movable partitions to reduce future remodelling costs when alterations are needed to keep the building from becoming obsolete.

- d) Using space flexibility; including foundations designed for imposed loads; using walls that can be moved to subdivide space and considering acoustical problems.
- e) Considering quality and quantity of light; avoiding over design (more capacity than needed) in the heating system and consulting with an insurance agent during design.
- f) Using building alternates with moderation; avoiding confusion of cheapness with economy; and keeping in mind the purpose of everything that goes into the schoolhouse (Asiabaka, 2008).

Thus, initiatives documented by schools in meeting set guidelines for effective management and utilisation of resources are necessary. The principles can drastically reduce costs and improve economic ways of taking care of school resources. Agabi (2010) adds some guidelines for effective resources utilisation and management: set objectives for using available resources; formulate plans for achieving the objectives; categorise activities into groups or departments; define tasks to be done; group the tasks into jobs; staff the jobs with people; initiate work activities; supply incentives to stimulate productivity; set up controls for measuring achievement of objectives and monitoring performance; and take remedial actions for unachieved objectives.

Monsey, Gozali-Lee and Mueller (1997) suggest some management strategies for increased learners' achievement in schools. These include: a common *shared mission and goals* that establish the direction of the school. *Collaborative planning* between teachers and administrators which involve working together to develop training that fits the needs of the school. *Problem-solving orientation*, staff and learners identify obstacles that if what they are doing is not working they try something else to overcome it and be willing to modify current practices and approaches to teaching and learning. *Decentralised decision-making* is if site based management is initiated; people in the school site must have authority over budget, personnel and curriculum. Teachers are encouraged to be innovative, creative and be able to take quick action. Schools have the increased and sustained organisational capacity and resources to cope with the decision-making. A variety of mechanisms for *involving different stakeholder groups*, schools delegate decision-making responsibilities to sub-committees to involve more stakeholders and reduce burnout but keep people actively involved. Having the *school environment conducive to learning*, that is, making special efforts to create an environment of orderliness, mutual respect and success of the school. For example, the

development and implementation of rigorous discipline policies and reward systems for the school.

Agabi (2010) also contributes conditions vital to the effective application of prudence in the management of education resources. These include: *conducive work environment* – establish an environment that fosters positive interaction between the school and the host community to accommodate the vast area of curricular coverage and financial help for the school. Develop a coordinated and positive programme for community relations; and encourage joint school-community discussions of policies, programmes and issues as they relate to schools. Such an environment is conducive for establishing access to the resources available to the community. *Reducing resource depreciation* – most school resources depreciate in value, with age and regular usage; while others depreciate from poor management and non utilisation. Resource maintenance should be directed at keeping school resources in the proper places prepared for them. Resource maintenance should include the provision of pest control and fire prevention services. This is likely to enhance the protection and durability of school plant and instructional resources and minimise wastage that may arise from poor maintenance.

Anyadike (2014, p. 1272) identifies the following strategies for managing resources:

*Proper Facility Inventory:* the whole essence of material resources management is to ensure productivity and efficiency of the school. A thorough inventory (listing, recording and accounting) of the properties of the school becomes paramount. The haphazard and lackadaisical attitude of school officials to the facilities and infrastructures in their care lead to wastage of the meagre resources at the disposal of the schools with which to accomplish a giant task of bringing development to the grassroots. There is a dire need to ensure a proper inventory of the facilities of the schools to ensure efficient operation of the education system.

*Better Office Management:* in the public sector, there is no better way of determining competent level for office management. The kind of office operated determines ones job enrichment. A proper office management will boost the morale of the office occupant and ensure efficiency of work. The management of the offices stems from the school head and the legislators who make the decisions hence provision of good office and its equipments as well as rules of maintenance are their responsibilities, while proper utilization and maintenance is that of the other workers in the schools.

Dash and Dash (2008) suggest strategies for material resources management. These include that the management should appreciate the need of material and physical resources for qualitative performance of employees. Management should study the availability of the materials in the school and if the materials are available it should examine the conditions of these materials. Next, materials should be purchased per the specifications in quotation approved by the purchase committee. This should be according to the requirements of the institution and within the funds available for the purpose. It may be possible to procure materials free of cost from external agencies. Another guide is that proper maintenance of materials is as important as purchasing these materials following usual procedure. Therefore, a teacher or any other employee may remain in charge of maintenance of materials. Proper maintenance helps to avoid wastage and damage and is essential for longer use. Next, an inventory of materials and stock register should be maintained up-to-date. The inventory or stock register should contain details about the name of the item, year of manufacture, date of purchase, price etc. next, the chief purpose of material management is optimum utilisation of materials for increasing efficiency of teachers and the quality of instruction. Therefore, materials should be used for the purpose they are, in the right way, at the right time and by the right persons. Another, proper and adequate space should be arranged for the storage of the materials. Lastly, the stock should be verified periodically or at least once a year to ascertain the condition of the materials, availability of materials and to indicate the need for fresh purchase (Dash & Dash, 2008).

Olum (2004) argues that because of economic competition, demands on school facilities become stricter and greater from day to day. Governments give in control over curriculum, its evaluation and supervision. They decentralise the educational system and give wider control over resources, including budget and management of teachers to institutions. So, there is need for the formulation of plans for achieving objectives, strategies for reducing resource depreciation and having proper inventory controls of resources in schools. Among other things I studied were any guidelines or standards set in schools regarding the management and maintenance of educational resources.

### ***2.6.3 Resource Maintenance and Sustainability***

Clarke (2007) and Anyadike (2014) are of the view that schools should have a proper resource maintenance plan. *Recognising relevant resource inputs* – the school should identify relevant resource inputs for the attainment of educational goals. Human and material resources are

needed to properly facilitate the achievement of optimal efficacy in school management. This would help minimise wastage from over-utilisation and eliminate the problem of under-utilisation. Regarding *Staff maintenance* – appropriate training, appropriate job placement and regular supervision should be given to members of staff. This would ensure the sustenance of desirable productivity levels. Regular supervision and evaluation of school personnel, with special emphasis on teacher performance, enables the principal to perform his role effectively; and the school should be open for inspection by higher authorities. When it comes to *Curriculum and instructional leadership* – the school should provide curriculum and instructional leadership including: promotion of quality instruction; supervision and evaluation of instructional activities; allocation and protection of instructional time; curriculum coordination; promotion of content coverage; and monitoring of learners' progress.

Asiabaka (2008) suggests that an effective school resource or facility maintenance plan should:

- a) contribute to an organisation's instructional effectiveness and financial well-being.
- b) improve the cleanliness, orderliness and safety of an educational organisation's facilities.
- c) reduce the operational costs and life cycle cost of a building.
- d) help staff deal with limited resources by identifying facilities priorities proactively rather than reactively. That is, extend the useful life of buildings.
- e) increase energy efficiency and help the environment (Asiabaka, 2008).

Therefore, all this shows the importance and improvement of maintenance planning and sustenance of school facilities.

Clarke (2007) observes that the aspect of facilities maintenance in school management is generally overlooked. Asiabaka (2008) argues that when new buildings are constructed and taken over by inappropriate authorities, practically no attention is paid to the maintenance of those buildings. Several school buildings may be over fifty years old but never undergo renovation or any form of modernisation in spite of the changes in the educational system. Some facilities appear architecturally obsolete and cannot contribute to functional education. Thus, maintaining new buildings, renovating and modernising the old ones require considerable expertise and commitment of human and material resources. According to Clarke (2007) facility maintenance entails providing a clean and safe environment for teaching and learning. It also involves the provision of adequate facilities for teaching and learning. Facility maintenance therefore, is an issue that concerns all levels of the educational system ranging from the pre-kindergarten to tertiary levels. Changes in weather conditions and lack of maintenance culture are responsible for the aging and deterioration of school buildings,

grounds and equipment. Asiabaka (2008) notes that school managers and teachers who constantly use school facilities lack knowledge of facilities maintenance planning. Consequently, they fail to integrate facility maintenance into the management of the school. The issue of facility maintenance is haphazardly addressed at all levels of the educational system. Repairs take place only when problems arise due to break down of the existing facility. So, the maintenance of the school resources is very important for their prolonged existence and use.

Asiabaka (2008, p.17) suggests some resource maintenance categories namely: preventive, routine, emergency repairs, and predictive maintenance. *Preventive maintenance* is a type of maintenance carried out on school facilities to avoid breakdown and ensure optimal performance of the facility. Up-to-date information about the facility is required to serve as a guide for the maintenance team. Preventive maintenance saves cost and time. It is usually an integral part of the management practice in societies where maintenance culture is well established. Decisions on preventive maintenance are collectively made and implemented. *Routine maintenance* is carried out periodically as scheduled by the school administrators. Resources may be serviced monthly, quarterly or even annually depending on the agreed schedule. Manufacturers guide provide information on the nature and maintenance intervals. School managers comply with these guides to avoid breakdown of the equipment. *Emergency repairs* are very common in the management of school facilities in societies where maintenance culture is not well established. It takes place when a facility breaks down and urgent measures or steps have to be taken to remedy the situation. In this regard, collective decision-making may not be possible because there may be limited time to bring together all the necessary individuals to make decisions. It is also expensive because due to lack of maintenance, the extent of damage may demand total replacement of the facility or high cost of repair. In some cases, the breakdown may cause injury or even death to staff and or students of the school. The effect may be high insurance premium or prevent the use of the facility for teaching and learning until repair had been effected. School heads should proactively develop and implement facilities management plan for addressing facility needs. *Predictive maintenance* involves the use of computer soft wares to predict equipment failure based on age, user demand and performance measures (Asiabaka, 2008). Therefore, in this study, one of the items under scrutiny related to how maintenance of resources was carried out in the selected schools.

Anyadike (2014) suggests that *adequate office equipment provision and utilisation* is most important for schools to thrive. Office management trends are changing and all have to move with the trend. High technologically based office equipments have made jobs easy, less stressful and interesting, hence the need to embrace them. Again, there is the need for confidentiality. Therefore, there is dire need for adequate office equipment and qualified staff to handle them for efficient service delivery in schools. *Better file management and record keeping* is paramount in every organisation. The way records are disposed in some schools is worrisome and holds back efforts to better planning for the future. Schools that manage their files and filing systems shabbily therefore need to have a better and enhanced filing system and management. This is because by default, they are to ensure people's development and they cannot achieve that without proper planning and without proper record keeping

Fasasi (2009) and Anyadike (2014) emphasise the importance of *adequate provision of offices and related infrastructures* in the school system. Unconducive environments cannot produce good results for learners. Besides, some may be forced to start comparing their status with that of their counterparts in the same level and when the result is not impressing, it may adversely affect their morals which are reflected in their attitude to work and leading. *Good maintenance culture* of the resources in the school system. This is the shortest means of achieving material resource management because after procurement, if the facilities are not maintained, either huge amount of money will be spent in repairing them or it will be spent in outright placement (Agabi, 2010). Unfortunately, the public sector has been accused of a culture of lack of maintenance, hence the need for it to be imbibed in the schools (Clarke, 2007; & Anyadike, 2014).

MASH Organisations (2012) propose that organisations, including schools should embark on sustainable procurement processes. This process integrates social and environmental factors with financial considerations as well. Purchasing language should ultimately reflect these core principles. Buying sustainably preferred option means purchasing products and services that have a reduced effect on human health and the environment, while enhancing social and environmental conditions. Sustainable procurement policies are employed by all levels of government and many municipal, academic, schools, and health and social service sector organisations. MASH Organisations (2012) also adds that protract purchasing is an important driver of sustainability in an economy as it is through the supply chain that buyers signal their commitment to fostering social well-being, economic prosperity and a healthy environment.

Thus, understanding the principles of green purchasing is critical in limiting the impact that business, governments, school and corporations' have on natural resources, ecosystems and human well being. Through sustainable purchasing goals and policies, organisations can be more efficient at managing resources, the social and environmental risks inherent in their supply chain (MASH Organisations, 2012). It is therefore crucial that schools pursue sustainable procurement practices any time they purchase their resources for present and future well-being of their institutions.

In this case therefore, if schools are to survive in the long-run, they should have maintenance plans put in place and have adequate repairs for their resources. This explains why in this study I investigated the existence and use of school strategic/development plans for the maintenance and sustainability of resources in order to assess the ability of attaining future plans for resources in schools.

#### ***2.6.4 Factors Hindering Resource Management***

According to Asiabaka (2008) securing adequate funding is always a challenge for managers in all organisations. The school administrator therefore is not spared from this challenge. However, it is necessary to look for alternative means of sourcing for funds within and outside the community. Government subvention and funds from all forms of fees and levies are usually inadequate. Onuoha-Chidiebere (2011) believes that apart from human resources and physical facilities, another resource that needs to be managed is funds. No organization functions effectively without funds. To create a suitable environment for teaching and learning and produce the materials and equipment for teaching, financial outlay is a necessity. Onuoha-Chidiebere highlights the centrality of financial provision in the advancement of educational objectives. She observes that the issue of educational financing is clearly the central pivot. This is so because the vital issue of the nature, quantity, quality and efficacy of educational system largely depend on the level as well as the appropriateness and management of the financial provision. Therefore, proper budgeting and planning for resources may improve accountability in schools.

Asiabaka (2008) adds that another factor is that school managers usually lack qualitative and quantitative information on facilities management. Quantitative data involves the nature and conditions of existing facilities, the nature of present and possible future use. Qualitative data involves room configuration, ventilation systems, windows, lighting, and access to support



facilities, condition of furniture, and space for equipment including specific discipline related requirements. Onuoha-Chidiebere (2011) shares the same sentiment that lack of accurate statistical data of resources is a challenge. Accurate statistical data of teaching resources are very important in the educational sector. Proper records of teaching resources (physical and material) help in effective management, utilisation and achievement of educational objectives. Some administrators fail to provide accurate and reliable data on the number of staff, learners enrolled and even materials available. These militate against effective management and utilization of teaching resources. Also, unreliable information on the number of teachers, learners and materials available affects planning and decision making. Asiabaka (2008) adds that the most fundamental problem in facilities management is lack of policy guidelines for infrastructural development in schools. Where in some schools, there are inadequate classrooms, staff offices, libraries, laboratories and workshops, while in some, these facilities are adequately provided. In this study I sought to analyse documents ‘speaking’ to statistical inventory of educational resource management in schools.

According to the 21st Century School Fund (2005) in order to increase public participation in facilities planning, there is need to create and support schools as centres of community that offer school-based support to children to eliminate barrier to success. Schools should serve the broader community, improve facilities management including maintenance, improvement programmes, secure adequate and equitable facilities funding. Policies should direct the actions of the school managers. In the absence of policy, facility management is left to the whims and caprices of the managers. Onuoha-Chidiebere (2011) argues that policy provides guidelines on the type of action to be taken on any issue. Where there is no policy, administrators will act without a guide. Ehiametalor (2003) observes that there has not been a clearly defined policy on maintenance culture in sub Saharan countries’ schools, either in educational infrastructural facilities or instructional materials. The WB report (2010) reports that in Swaziland there is no textbook policy and this renders school operation very difficult.

The lack of guidelines and policy on maintenance, management and utilisation of educational resources can negatively affect the achievement of educational goals and objectives. Since schools are formal organisations, all activities including facilities management should be in line with laid down rules and regulations derived from overall policy guidelines. Consequently, there should not be situations where some learners are exposed to harsh weather conditions,

while others are in air conditioned classrooms. In this study I also sought to study resource allocation practices in the research schools.

Onuoha-Chidiebere (2011) identified the following challenges to effective management and utilization of resources in Kenya: *Poor maintenance culture*: Facilities and instructional materials not being adequately maintained. Some administrators would prefer building new classroom instead of maintaining the old ones. Laboratories and their equipment allowed to waste, text books and other instructional materials rotting away in the cartons, instead of displaying them on the shelves for easy retrieval and usage. *Inadequate Facilities and Instructional Materials*: learners learn better when the facilities like buildings, comfortable seats for teachers and students, equipment, electricity and good water supply and instructional materials like good libraries with books, visual and audio-visual materials are available. According to EDSEC Policy (2011) the available teaching resources should be managed and utilized properly. When these facilities are lacking, learners cannot learn well and these affect the achievement of educational objectives. In Swaziland, while some other schools are well equipped with facilities for effective teaching and learning, others have insufficient facilities or are poorly equipped. The management and utilisation of these teaching resources are not encouraging.

Onuoha-Chidiebere (2011) adds other challenges: *Capacity of teachers to manage and use teaching resources*: Most teachers are unable to update their knowledge through exposure to conferences, workshops and seminars. They do not have access to current journals, textbooks, internet facilities. Teachers rely on their old textbooks, notes and materials. This lack of exposure on the part of the teacher affects his/her management and utilisation of teaching materials. The teacher should be capable of managing and using teaching resources for effective learning to take place. *Overcrowded Curriculum*: When the curriculum is overcrowded, management and utilisation of teaching resources become difficult. The teacher will be rushing to cover the topics in the curriculum and no attention will be given to teaching resources in the class. According to WB report (2010), there is a concern that the curriculum is overloaded in Swaziland. This implies that, when the curriculum is overloaded, management and utilisation of teaching resources become ineffective. Bakwai (2013) highlights that continued trend of quantitative expansion and changing educational systems to fit more realistically and productively to the changing needs of society and individuals are challenges in resource management. Also, failure to raise efficiency and productivity so that schools

contribute the most in national development within limited resources available can be another impediment.

Since educational resources play an important role in the achievement of education goals and objectives, there is need for schools to source outside help for funding, and be well equipped with data collection and analysis information to form the bases for facilities management decision. This may help improve resource availability through financial support and other forms, thus reducing some of the challenges and shortages experienced by schools. The situation of the lack of policy also applies to Swaziland; lack of book policy, lack of guidelines to resources management, maintenance, management and utilisation of teaching resources, to mention a few. It therefore becomes imperative that the different levels of government should address the issue of development and implementation of minimum standards for facilities development and management in schools. This study investigated any policies pertaining to generation and management of resources.

Sigilai (2013) identified some factors influencing curriculum implementation. These include: influence of academic staffing and teaching and learning resources on students' academic achievement. When there are few teachers, the efficiency in arranging comprehensive learning experiences for learners is hindered. Further, when teachers are few and students are many, their workload becomes more, thus making it difficult for them to perform to their optimum level, to enable students to release the expected learning outcomes. Effective instruction therefore results in meaningful learning process. The ESSP (2010, p. 33), stipulates that "educational activities should be centred on the learners for maximum self-development and self-fulfilment".

In a study on school-based management in Indonesia; Karam, Vernez, and Marshall (2013) argue that although schools have autonomy to make independent decisions, still they had little evidence to take advantage of making independent significant instructional and operational changes in their schools. Part of the problem had to do with head teachers and teachers' lack of knowledge and preparedness about taking risks to make independent decisions. Districts continued to exercise a great deal of influence on school decisions and head teachers and teachers continued to defer to them for the most part. Also, both principals and teachers felt that they received inadequate support and training on SBM, and on how to make school performance improvements. The participation of school committees and more generally of

parents in school decisions and school affairs still had to be achieved. Similarly, sharing of information and holding schools accountable was work in progress. Karam et al., (2013) in their study found that the transparency of information and accountability by the districts, parents and the local community were minimal. School committee members rarely questioned decisions made by the school, even when its chair was required to sign them. Therefore, this study set out to understand such factors affecting schools in generating and managing educational resources in creating contact with the environment. Karam et al., (2013) add that monitoring of school activities, although said to take place with some frequency by districts, seem to be rarely used for effective accountability, or for providing support for improvements. How well head teachers are prepared to lead and how well teachers are trained, these are both associated with SBM-related outcomes as well as higher student achievement. Higher principal education is associated with higher principal influence on school operations and a larger share of discretionary budget being spent on instruction.

School heads are dynamic and life-giving elements in schools. This implies that they should be strategic in accomplishing as much as possible organisational goals with minimum resources available. School managers must be productive, that is, effectively perform basic managerial and non-managerial activities. They should apply basic knowledge and show preparedness in taking risks for their schools to attain educational goals. In Swaziland such challenges as lack of a clearly defined policy on maintenance culture of resources, lack of proper funding for resources procurement, no proper storage of resources, lack of support for training of administrators and improvement of schools, fear to take risks in decisions by schools, are likely to affect schools' operation. Therefore, in this study I sought to investigate factors affecting educational resource management.

#### ***2.6.5 Some Theories in Resource Management***

In this section I discuss the administrative, team building and contingency theories in resource management. These theories are highlighted briefly, in order to understand how schools as social organisations can manage resources for survival and bring the contribution of knowledge about what managers do.

Tasic et al., (2014) discuss the administrative theory by Henri Fayol. It mainly focuses on the personal duties of management at a much more granular level. In other words, this theory is more directed at the management layer. Fayol developed fourteen principles of administration

to go along with the management primary roles. The principles are: specialisation/division of labour, authority with responsibility, discipline, unity of command, unity of direction, subordination of individual interest to the general interest, remuneration of staff, centralisation, scalar chain/line of authority, order, equity, stability of tenure, initiative, and esprit de corps. This theory clearly believes that personal effort and team dynamics are part of an ideal organisation. The concept of giving appropriate authority with responsibility is also widely commented on and is well practiced in organisations. This implies that school administrators should involve people in tasks as groups or individuals. In this study I was interested in learning schools' initiatives towards resources management from within and externally.

Olum (2004) discusses the team building theory by John Adair that articulates the strategic management process and responsibilities. Tasks need a team because one person cannot accomplish it. If the team needs are not met, the task suffers and the individuals are not satisfied. If the individual needs are not met, the team suffers and performance will be impaired. The theory hinges on reliance on teamwork. It emphasises flattening of management pyramid and reducing the levels of hierarchy. It is about consensus management that is, involving more people at all levels in decision making. Gambari (2012) adds that the team building theory promotes a systematic approach to strategy formulation that is rooted in the mission or purpose of the organisation, and tests the implementation choices and actions of the organisation against that mission. Thus, it is the responsibility of the manager to create a plan; identify resources, people, processes, systems and tools in order to achieve tasks set before them. The manager should set standards, quality, and reporting parameters, control and maintain activities; monitor and maintain overall performance against a plan. Therefore, there is need for quality circles, best practices and continuous improvement in management practices in schools.

Raduan, Jegak, Haslinda, and Alimin (2009) discuss the contingency theory by Fiedler. This theory says that leadership effectiveness is a component of two factors: task motivation and circumstance. This theory raises the idea that there is no one or single best way or approach to manage organisations. It emphasises that organisations should develop managerial strategies based on the situation and condition they are experiencing. The optimal leadership style is contingent upon various internal and external constraints. In short, during the process of strategy formulation, implementation and evaluation, the main strategic management theories can be applicable to management of organisations as tools to assist them in making strategic

and guided managerial decision. The theory also encourages managers to study individual and situational differences before deciding on a course of action. That is, a wide range of external and internal factors should be considered and the focus should be on the action that best fits the situation. The theory provides the manager with the capabilities to examine numerous possible solutions to a problem and choose the best option (Raduan et al., 2009).

This implies that managers need to develop in skills that are most useful in identifying important situational factors. Managers must be able to examine the situation and determine the cause of action before implementing a new programme. In the case of schools, there is need to identify areas of resource need and come up with strategies to overcome those challenges. For example, engaging in techniques to supply educational resources in a fair way, for the success of the teaching and learning processes in schools. Therefore, this study set to analyse school development plans regarding the future prospects and changes that might be brought about in the operations of a school using new ways of looking at things. This includes the use of best practices, principles, change management and use of sustainable methods of maintaining educational resources.

## **2.7 Emerging Issues**

This section summarises key issues that came out in the literature. Studies indicate that education is a major engine of economic and social development. The expansion of educational systems is of high priority of many governments; investments in human capital, health and education have important economic benefits for the whole society (OECD, 2008). Researchers and scholars in education agree that timely, adequate and relevant training for secondary school administrators is of essence in their management roles to minimise and avoid managerial shortcomings. Thus, strategic management for schools is of paramount importance. Therefore, costs of resource mobilisation must be born in mind and kept minimal to solve the intention of the educational needs.

Literature shows that there is a positive relationship between educational resources utilisation and internal efficiency of a school. Policies formulated on educational resources should be implemented in order to achieve the highest level of efficiency. Modern methods of resource management promote knowledge sharing, transparency, monitoring and evaluation. This also facilitates the development of partnerships with more engagement of civil society and private sector (Jenks, 2012). Methods of record keeping are of paramount importance to schools in

order to improve the quality of teaching and learning and successful operation (Asiabaka, 2008; Fasasi, 2009; Ajileye, 2011; Motsamai et al., 2011). Mengistu (2014) also stresses that resource management and utilisation are an integral part of the overall management of the school. Education in a school is determined by provision of resources, their maximum utilisation and management. Advances in science and technology necessitate that the school manager should adopt modern methods of facilities management in order to improve the quality of teaching and learning. The quality of school facilities, teaching and learning materials, teaching personnel and the education process will eventually determine the instructional programmes and performance of the school.

Most literature shows that it is important for educational planners and administrators to ensure that there is enough financial support (mobilisation of resources) and fair supply and distribution of all educational resources to schools in order to achieve quality education (Karam et al., 2013; Gebreyes, 2013; & Oluremi, 2014). It is also important to note that financial resource management is core in aiding the management of other educational resources because without finance, there is no supply of resources to schools. Olatoun (2012) fully concurs that money is important in the respect of resources because with it, all other vital elements in the school can be obtained, for example, buildings, purchase of equipment, payment of teachers' salaries and allowances, and operating expenses. Techniques of resources generation and management are of concern in SBM, (Ajileye & Ikegwuru, 2011; Motsamai et al., 2011; & Olatoun, 2012). Proper record keeping for all educational resources is of great essence, (Fasasi, 2009); Owoeye & Yara, 2011; & Bakwai, 2013). This aids budgeting in schools, eliminate the challenges of improper recordings and inform schools about careful management of all educational resources.

Downes (2007) suggests that a very definite change in strategy and change in perception is needed by leaders of non-profit organisations (schools) if they are going to consider seriously the variety of possible income generating possibilities. Entrepreneurial approaches in resource mobilisation and other approaches are helpful in organisations to lower costs of education. Schools can apply the realm of resource mobilisation in a deliberate, planned and proactive approach to succeed. A complete overhaul of attitudes, preconceptions and a new look at the organizations vision, mission and strategy are required. A different kind of staff needs to be hired if the organization is serious about developing income generating activities (Volansky & Friedman, 2003). Although the government may provide most of the resources to schools,

these can never be enough to meet the demand. Schools that generate additional resources are therefore, most likely, to achieve their goals much better than those that simply rely on government (Agabi, 2010; Ajileye & Ikegwuru, 2011). Thus, literature gives some strategies that may be put in place to inform the MoET on the best possible practices that may be employed in procuring, maintaining, generating and managing scarce educational resources assigned to schools (Shrifian, 2011).

Researchers agree that resources are vital tasks that enrich teaching and learning (Ehiametator, 2003; Olangunju & Abiona, 2008; Onuoha-Chidiebere, 2011; Olatoun, 2012; Alaka & Obadara, 2013). Cost effectiveness in resource procurement and management is therefore vital in SBM. It is necessary to find ways for the secondary school system to be run cost-effectively. Maintenance culture must be deeply rooted in schools. Special attention must be focused on prudent management of educational resources in order to sustain qualitative education (Afolabi et al., 2008; Agabi, 2010; & MASH organisations, 2012). Theories in resource generation and management reveal that a school should be operated in a way that encourages decisions that involve all stakeholders. This can bring about better methods of acquiring resources in order to accomplish goals and have sustainability (Zhamin et al., 2014).

Mestry and Bodalina (2015) highlight that the management of physical and material resources include; setting up appropriate structures and processes; identifying educational resources needs, establishing sources of funding and conceiving well-formulated budgets; identifying reputable suppliers and service providers; and procuring, utilising, maintaining and controlling the assets and educational resources within given boundaries and polices. Therefore, for effective, efficient and economical use of the educational resources, both formal and informal structures, systems, processes and polices should be operational. It is also important to re-evaluate existing structures and processes so that the objectives of the school are achieved at the lowest possible cost. Structures of resource management should incorporate ways of pursuing optimum-sustainable performance of physical resources to adopt a whole-life approach in acquisition/operation, performance, maintenance, control and disposal of the resources (Hinun, 1999; Mengistu 2014; Mestry & Bodalina, 2015). Literature in Swaziland shows little documented information on studying resource generation and management. Some policies are not explicit on strategies of recruiting heads of schools and there are no guiding rules on maintenance, generation and management of educational resources. For example, there is lack of a text book policy to guide on the life span of a book.



Related studies in the field of resource mobilisation and management used qualitative approaches in the form of interviews, document analysis and observations (Motsamai et al., 2011; Agabi 2010). Others used the quantitative approach with survey questionnaires and descriptive statistics (Olatoun, 2012; Olagunju & Abiona, 2008; Ajileye 2011) separately. This current study adopted a mixed methods research approach. This is explained in greater detail in chapter four.

## **CHAPTER THREE: THEORETICAL FRAMEWORK**

### **3.1 Introduction**

In this chapter I discuss three key theories in education management and resource mobilisation that collectively make up the theoretical framework of the study. In the discussion I explain the importance of theories in research. I discuss each theory separately; explain its characteristics, advantages, limitations as well as implications for the present study. In the last section I integrate them to come up with a framework.

### **3.2 The Importance and Role of Theory in Management and Research**

According to Olum (2004) there are many theories about management, and each contributes something to knowledge of what managers do. In the field of management the role of theory is to provide a means of classifying significant and pertinent management knowledge. There are three reasons concerning the study of management theory: a) theories provide a stable focus for understanding what we experience that is, provide criteria for what is relevant and has boundaries. b) theories enable one to communicate efficiently and move into more complex relationships with other people. c) theories make it possible or challenges one to keep learning about the world around (Olum, 2004). Wilson, Abram and Anderson (2010) add that theory provides concepts to name what we observe and to explain relationships between concepts. It allows us to explain what we see and to figure out how to bring about change. Theory is a tool that enables us to identify a problem and to plan a means for altering the situation. Theory justifies means to get funding support and explain what is being done, and also demonstrate that what is being done works. Theory demonstrates different origins and epistemologies of disciplines in organisations. Theory guides research (Wilson et al., 2010). Theory is used to provide a new perspective for collecting and analysing data about management functions in organisations (Motsamai et al., 2011; Castillo, 2014; Bush, 2007).

Bernath and Vidal, (2007) say that theory helps us to explain relationships between concepts. It allows us to explain what we see and to figure out how to bring about change. Theory enables us to identify a problem and to plan a means for altering the situation. That body of knowledge grows with theory and guides research. Tasic et al., (2014) argue that modern society considers the acquirement of new knowledge, skills and competences as an instrument of sustainability at all levels. In this study, I used theory to seek to help analyse situations,

explain relationships between concepts, and classify significant and pertinent management knowledge regarding learning resources.

The focus of the present study was threefold namely: HTs and HODs' experiences on generating and managing educational resources; factors that affected the generation and management of educational resources; and third, determining practices to sustain education. To understand these, I adopted the Collegial model (Bush, 2003); Systems theory (Deacon and Fiebough, 1988); and Funding models (Downes, 2007) as the theoretical lenses.

### **3.3 The collegial Model of Educational Management**

Bush (2003, p. 52) explains the collegial model as follows:

“... [an] organisation determines policy and makes decisions through a process of discussion leading to consensus. Power is shared among some or all members of the organisation who are thought to have a mutual understanding about objectives of the institution”.

#### ***3.3.1 Features and Advantages of Collegial Models***

Bush (2003) argues that management should be based on agreement that is, decision making should be based on democratic principles. In a school context Campbell (2013) adds that everybody's ambitions, expertise and capabilities are taken into consideration and used in a way that promotes the welfare of the organisation. Shrifian (2011) agrees that teachers require a measure of autonomy in the classroom, but also need to collaborate to ensure a coherent approach to teaching and learning. Shared decisions are likely to be better informed and are also much more likely to be implemented effectively. A common set of values are held by members of the organisation. These guide the managerial activities of the organisation and are thought to lead to shared educational objectives. They also form part of the justification for the optimistic assumption that is always possible to reach agreement about goals and policies. The size of the decision making group is an important element. They have to be sufficiently small to enable everyone to be heard. This means that a group works better in sub-units which have formal representation within the various decision making bodies like heads of departments.

The collegial model assumes that decisions are reached more by consensus than conflict. There may be differences of opinion but they can be overcome by the force of argument (Campbell, 2013). Shrifian (2011) also says that the collegial model assumes that teachers have formal

representation within the various decision-making bodies. The democratic element of formal representation rests on the allegiance owed by participants to their constituencies. Imposing decisions on staff is considered morally repugnant, and inconsistent with the notion of consent. Collegial management styles are characterised by managers developing close relationships with their staff in which they relate to on a personal level rather than simply a professional one. The idea is to try to develop a more effective working environment by endangering a friendly workplace, where employees see themselves as a close-knit team where every member has an important say in the decision-making process.

Olatoun (2012) emphasises that the collegial model of management is a supportive style, in which the main role of the manager is to provide employees with the tools they need to do their jobs. In this sense, the manager takes on a sort of liaison role between her employees and the rest of the organisation and in addition, employees rely on their managers to support them through sharing their expertise and experience. Shrifian (2011) argues that managers are important for facilitating team work within their departments. This model considers a manager and employee as more of a partnership relationship than a hierarchical one. In this sense, the manager provides the needed resources as far as possible in order for the organisation to do its job effectively. A manager and an employee see each other as team members working toward the same goal and with different strengths and roles towards achieving those goals.

Bush (2003) says that collegiality has become closely associated with school effectiveness and school improvement and is increasingly regarded as the official model of good practice. Shrifian (2011) suggests that employee participation in decision-making has long been recognised as a source of enhancing organisational effectiveness. Therefore, organisational effectiveness can be considered as a function of the participation and relationship between organisational members. Castillo (2014) explains that with the collegial model, members of an organisation agree on its goals. Goals provide a general guide to activity, serve as a source of legitimacy, and are a means of measuring the success of the organisation. The structure of the organisation is an objective fact which has a clear meaning of all members of the institution. The institution's environment is characterised by a decision making that has a participative process with all members of the organisation and having equal opportunity to influence policy and action. Thus in the context of this study, stakeholder participation becomes a major factor in the success of the school operation (Castillo, 2014). Similarly, resource mobilisation and management as processes in an organisation need consensus among stakeholders and building

firm relationships for support through sharing expertise and experience for the success of school operations (Bernath & Vidal, 2007; Motsamai et al., 2011; Castillo, 2014).

The collegial way of managing a school is likely to promote collaboration and reduce conflict between staff. The head teacher is expected to support teachers' efforts and motivate them to share and strive to achieve the school's values. The head helps teachers to cope with the difficulties encountered and promotes respect, democracy, honesty and trust. He/she encourages teachers to take part in educational seminars and provides equal opportunities for participation in decision making (Castillo, 2014). Individuals play a crucial role in establishing particular values within the environments in which they live and work. Shrifian (2011) also suggests that one advantage of the collegial style of management is that, with its close personal interactions, workers get to know their managers much better than those with a more authoritative and distant manager. Understanding organisational behaviour and what it can explain about employee interactions can help managers better understand how to deal with issues involving power and authority, resource allocation, support and team work. This implies that where the head teacher and colleagues work together as a team, they can achieve high productivity, better informed decisions and efficiency in resource management.

### ***3.3.2 Some Disadvantages of Collegial Models***

Shrifian (2011) reports that if a manager becomes too collegial with his/her staff it could undermine his/her ability to push on the staff when things need to improve. If a manager's relationship with the employees is too collegial, he/she could find himself/herself struggling with laying off, or firing workers than a boss who maintains a more distant and professional relationship with employees. Another limitation of this model according to Bush (2006) is that it tends to obscure rather than portray reality. Collegial approaches in decision making are slow and cumbersome. This is tortuous and time-consuming because policy proposals that require approval would have to go through a series of committees. There is no guarantee of unanimity on outcomes of the consensus that may be reached by committee members or participants. The participative aspect of decision making exists alongside the structural and bureaucratic components of organisations. It rests on authority of expertise possessed by professional staff and rarely trumps the positional authority of leaders and officials. In schools for example, collegial approaches may be difficult to sustain because heads and principals remain accountable to governing bodies and external authorities (Bush, 2006). This means therefore that this model's effectiveness depends in part on the attitudes of the staff. If they

actively support participation they may succeed. If they display apathy and hostility, they are likely to fail.

Therefore, school heads ought to be strategic about their leading roles (Bush, 2006; and Shrifian, 2011). The education system in Swaziland has a bureaucratic structure (MoET, 1970-1974). However, schools can digress a bit from the mainstream, but most elements of management fit into the bureaucratic structure of the educational system. Within the collegial model, the governing body (school committee) of each school can set additional aims and objectives that would benefit the school, community, also the quality of the education offered (Bush, 2006; Seiler et al., 2007; & Shrifian, 2011). This could bring about strategic change in the way educational resources are maintained and managed in schools.

Apart from the limitations of the collegial model, the collegiality approach still plays an important role in the operation of a school. This suggests that for effective school functioning there is need for the involvement of all stakeholders in decision making regarding educational resource generation and management. This means that schools should satisfy the needs of learners, community and parents and not only to satisfy the bureaucrats. That is, schools may advise the MoET on their priorities and needs or integrate the various models in the administration role. In this study, I sought to utilise the features of this model to understand how stakeholders worked together in generating and managing resources. But, this theory on its own was not be enough to go the whole way in covering issues of resource management, therefore, there was need for other perspectives as I discuss below.

### **3.4 The Systems Theory**

Oyebade (2010) says by systems it means ‘complexes of elements standing in interaction’. An important feature of a system is that any system has a tendency to achieve a balance among many forces operating upon and within the same. Varendor (2014) defines a system as a set of objects working together with relationships between the objects and their attributes related to each other and to the environment. Therefore, a system in simple terms in respect to management is a set of different independent parts working together in an interrelated manner to accomplish a set of objectives. A system is called ‘open’ if there is a continual input and output of both energy and matter in it. A system is called ‘closed’ if it neither takes in nor emits matter (Oyebade, 2010). Authors such as Bush and Derek (2003); Olum (2004); Sigilai (2013) and Castillo (2014) observe that a system is a collection of parts unified to accomplish an over-

all goal. If one part is removed, the nature of the system is changed as well. In a school system, the teaching and learning process is dynamic and has inputs, processes and outputs. So, best results are achieved when the most suitable resources are fed into the teaching and learning process in the best way possible.

Castillo (2014) argues that a systems approach involves the coordinated management of the components in a system for the best results. In the education system, head teachers, teachers, instructional materials, classrooms, furniture, equipment and learners form the components. Therefore, an interaction between these inputs in the education system results in better learning outcomes. The quality of resources (inputs) available for a school determines the type of result (outputs). It is important for managers to maintain effective interpersonal relationships with the community and its external agencies (Fasasi, 2011). Sigilai (2013) argues that a good result in education has to do with the way the inputs are transformed into outputs. Input-output or the production function model assumes that the output of an educational process is related to the number of inputs invested. In the case of schools, the inputs include family resources, school resources, community characteristics, student resources and peer group characteristics. Outputs are scores on achievement relating to efficiency, effectiveness, relevance and quality. One of the goals of all managers is to be productive. So, productivity improvement is about effectively performing the basic managerial and non-managerial activities in a school setting. This constitutes a point of reference of fostering good relationships between schools and their external environments including knowing their needs and getting the needs of the schools across them. This is likely to add to high productivity, efficiency and effectiveness in school operations (Sigilai, 2013). Also, Olum (2004) adds that all systems except the smallest have sub-systems and all but the largest have supra systems, which are their environment. Each system or sub-system is conceptualised as having a boundary. The boundary of a system is the component that separates the system from its environment and filters the inputs to and the output from the system. Inputs, processes, and outputs of an organisation are all stages in the system's cycle of events. The school therefore, has to interrelate with its environment for its effectiveness and efficiency in their management functions.

According to Castillo (2014) the environment is made up of several social, economic and political institutions, which are constantly interacting and inter-dependent. Everything in an environment is a complete system on its own. But it is a unit or sub-system of yet a larger system and all are inter-dependent. Examples of sub-systems include: Organisational structure,

for example classrooms, school levels, hierarchy, and departments; instructional technology, teaching, administering tests, and conducting extra-curricular activities. Hossein, Ramezanineghad, Yosefi, Sajjadi and Malekakhlagh (2011) emphasise that schools are essentially living systems and that without people they are nothing but concrete and paper. As living systems they are in a constant process of interaction with their communities and other institutions in them. The school system though a complete system on its own, it is a sub-system of the nation's educational system which in turn subsists in the larger social supra system called the environment. The basis of using the systems approach finds strength in Oyebade (2010, p. 39) submission that:

“.... [an] organisation should be studied not merely as a formal arrangement of superior and subordinates or as a social system in which people influence each other as a total System in which the environment, the formal arrangement, the total systems and the technical systems are constantly interacting”.

Therefore, effective management of educational resources in schools call for the involvement of various aspects of the environment within and outside the school system.

### ***3.4.1 Features of the Systems Theory***

Deacon and Fiebough (1988); Love and Skitmore (1996); Yuchtman and Seashore (1967) lay down clearly that the system theory analyses the decision maker's capability to efficiently distribute resources among various sub-system's needs. Sub-systems' needs may be classified as: bargaining position – the ability of the organisation to exploit its environment in acquisition of scarce and valued resources; ability of the system to produce a certain output; maintenance of internal day-to-day activities; ability of the organisation to coordinate relationships among the various sub-systems; ability of the organisation to respond to feedback regarding its effectiveness in the environment; and ability of the organisation to accomplish its goals. Therefore, the school as an organisation has goals to accomplish, an output to produce and resources to maintain for its efficiency and sustainability.

According to Bush (2006) organisations are treated as systems with sub-units such as departments or pastoral units systematically related to each other and to the institution itself. The system shows the authorised pattern of relationships between members of the institution. Official structures of the organisation tend to be hierarchical. For example, in secondary school staff is responsible to heads of department who in turn, are answerable to head of school. The

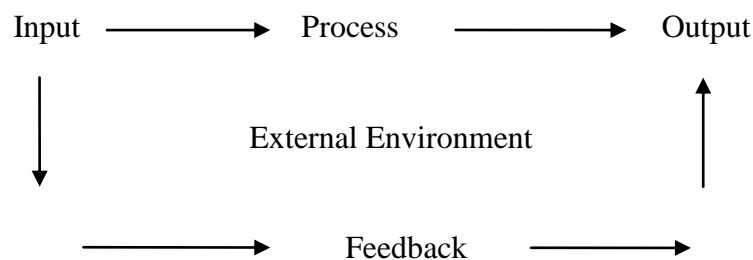


systems approach typifies schools as goal-seeking organisations; where heads and principals take the leading role in determining the goals of their institutions. They assume that managerial decisions are made through a rational process, that is, all options are considered and evaluated in terms of the goals of the organisation; and the most suitable alternative is then selected to enable organisational goals to be pursued. The systems theory presents authority of leaders as essentially a product of their official position within the organisation. That is, heads of department and principals have authority over other staff because of their formal roles (Bush, 2006). There is emphasis on accountability of the organisation to its sponsoring body. Schools are answerable to their governing body which has enhanced responsibility for finance and staff management; in the case of Swaziland it is the Regional Education Officers (REOs) and MoET. With regard to management, this suggests that these approaches assume that the official leader and the committees are thought to have a major role in goal setting, decision making and policy formulation at school level (Charlton & Andras, 2003). Again, this means that the administration should take a leading role in determining the goal achievements of their schools through strategic planning.

Using an enlarged Input-Process-Output-Feedback (IPOF) Model Deacon and Fiebough (1988), Love and Skitmore (1996), Oyebade (2010); Charlton and Andras (2003); Bush (2006); Seiler et al., (2007); Castillo (2014) report that a system (including a school) can be looked at as having *inputs* such as: a) human resources such as students, teachers, administrators, people, and others. b) material resources such as buildings, desks, books, equipment, pencils, raw materials, facilities and equipment, goods and services purchased by the educational system and others. c) financial resources such as money; d) constraints, such as requirements of the law and policy, expectations of parents, values and goals; and e) existing knowledge in the society, context factors as families and community characteristics. The throughput *process* involves the teaching and learning process, processes of planning, organising, motivating, and controlling; processes such as policies, practices, organisation management, climate and other internal workings of the education system. The *output* or products of the educational system are learners in the form of educated people now better equipped to serve themselves and society. These learners have acquired more knowledge, intellectual and manual skills, and powers of reason and analysis. Outputs also include products or services and outcomes including enhanced quality of life or productivity, student test scores, graduation rates, dropout rates. Some of the outputs go back to the system as new inputs. Systems share *feedback* among each of these aspects of the system. The feedback process is evaluative because it provides the

necessary information about the performance of the school so that appropriate modifications can be effected on the objectives and other inputs. Feedback is the process by which self-regulating and self-directing systems adjust themselves. It entails drawing some of the systems output back into the system as information inputs so that possible discrepancies between intended outputs and actual outputs could be compared. Feedback is positive when no discrepancy exists but it is negative when there is discrepancy (Deacon & Fiebough, 1988; Castillo, 2014).

In this study I sought to explore how a school interacts with the internal and external environment to get inputs (resources) for operation, output as performance and feedback for improvement in the management functions carried out in the school as a system. Figure 3.1 shows the input, process, feedback and output of an organisation.



*Adapted: Castillo (2014)*

Figure 3.1: The I-P-O-F model

In a school set up, this means that when managers make decisions, they must take into account all aspects of the current situation and act on the key aspects to the situation at hand in order to achieve high productivity of the organisation. The basic processes or inputs required by a school to sustain itself within a system are the work processes (teaching and learning, availability of resources), the management process, the monitoring and evaluation processes (maintenance, utilisation, distribution) and the internal feedback process (accountability on the use of resources), (Downes, 2007; Agabi, 2010; Shrifian, 2011; & Olatoun, 2012). Therefore, in this case, all the elements of the environment; internally and externally from which inputs are secured should be collaborated and coordinated to sustain the school operation and management system.

### ***3.4.2 Some Advantages of the Systems Model***

Love and Skitmore (1996) identify five advantages of the systems approach: a) the organisation is the frame of reference b) relations between organisations are a component of its definition c) the general framework can be used in different types of organisations d) variability of measurement techniques in comparative evaluation is allowed and e) guidelines for selecting empirical measures of effectiveness are provided. Bush (2003) adds that the advantages of this theory include that: a) it aims at meaningful analysis of organisations and their management b) it facilitates the interaction between organization and its environment and c) it guides managers to avoid analysing problems in isolation and to develop an integrated approach. This means that schools, MoET, school committees, households, business and industry, PTA, development partners as well as non-government organisations (NGOs), and donor agencies (local or international) should jointly support education to strengthen a country's economic growth. According to Olum (2004) the systems theory in management helps managers to look at the organisation more broadly. It also enables managers to interpret patterns and events in the workplace, by enabling managers to recognise the various parts of the organisation, in particular, the interrelations of the parts. Varender (2014) adds that the systems theory aims at meaningful analysis of organisations and their management. It facilitates the interaction between an organisation and its environment. It guides managers to avoid analysing problems in isolation but to develop an integrated approach. In this case it means that a school system can be viewed as a management function working with all stakeholders essential for sustainability, efficiency and for effective contribution to educational material and physical resources.

### ***3.4.3 Some Disadvantages of the Systems Model***

Bush (2006) identifies some weaknesses associated with the systems model. It is often difficult to ascertain the goals of educational institutions, therefore, the model may be unrealistic to characterise schools as goal oriented. Decision making is portrayed as a rational process so it is fraught with difficulties. This is because decisions in schools are made by teachers, who also draw on a whole range of experience as they respond to events. Focus is on the organisation as an entity and this underestimates the contributions of individuals. The theory assumes that people occupy positions in the structure and that their behaviour reflects their positions rather than their individual qualities and experience. The systems model assumes that power resides at the apex of the pyramid, that heads and principals by virtue of their positions as the appointed leaders of their institutions can direct the actions of workers. The approach is based

on implicit assumptions that organisations are relatively stable. The notion of analysis of a problem followed by identification of alternatives and process of implementation and evaluation may be unrealistic during periods of turbulence (Bush, 2006). Varender (2014) adds that the approach does not recognise the differences between systems. It is over-conceptual. The systems philosophy does not specify the nature of interactions and interdependency philosophical framework that entails a highly empirical and investigative form of management science. It is unpractical in that it cannot be easily and directly applied to practical problems. It is a complex system and lacks universality (Varender, 2014).

In spite of the limitations of the systems theory, using this approach, schools can provide opportunities for increasing effectiveness in organisational behaviour with greater impact. They can engage on change management activities, flexibility dimensions, build environmental relations, create effective groups and also take advantage of modern educational methods prioritised in their plans to survive and sustain the education system (Love & Skitmore, 1996; & Deacon & Fiebough, 1988). The systems theory suggests an evolutionary explanation for the dominance of management in the contemporary world. It also clarifies the role of complex organisations in society. This model predicts the complexity of organisations and therefore, the role of management probably continues to increase, at least, for so long as the efficiency-enhancing potential of complexity can continue to outweigh its inevitably increased transaction costs (Charlton & Andras, 2003; & Agabi, 2010). In this study I adopted the systems theory because it clearly represents how a school interrelates within its sub-units and its external environment. It shows how an organisation's resourcefulness is displayed in acquiring, distributing, utilising and maintaining scarce resources. This may benefit learners of educational resource management, those making a shift from teaching to educational management. This model can also impact on policy decisions and frameworks in organisations. But still the systems theory on its own is not enough to go the whole way in issues of educational resource mobilisation and generation, therefore, the need for other perspectives as well.

### **3.5 Funding Models**

Wiley (2007) defines sustainability as the ability of a project to continue its operations. The idea of continuity is critical in that sustainability should include the idea of accomplishing goals in addition to ideas related to prolonged existence. In short, in the present context it is an educational resource project's on-going ability to meet its goals.

Koohang and Harman (2007, p. 538) in their discussion of the concept of advancing sustainability of educational resources say:

“... [an] attempt to provide the best outcomes for the human and natural environment both now and into the indefinite future. It relates to the continuity of economic, social, institutional and environmental aspects of human society, as well as the non-human environment. It is intended to be a means of configuring civilisation and human activity so that society, its members and its economies are able to meet their needs and express their greatest potential in the present, while preserving biodiversity and natural ecosystems; and planning and acting for the ability to maintain these deals in a very long term. Sustainability affects every level of organisation, from the local neighbourhood to the entire planet.”

Thus, it is wise for schools to invest in sustaining educational resources. According to Seltzer (2014) sustainability has streams vital for the survival of an organisation including institutional sustainability, where the organisation has a strong, flexible structure, and accountable, transparent governance practices. This allows the organisation to respond to the shifting priorities of its supporters and to new responsibilities towards clients, while creating a positive work climate for its staff. Financial sustainability is when the organisation draws on various sources of revenue, allowing itself to support its on-going efforts and undertake some new initiatives (Seltzer, 2014). In this case, schools should secure enough revenue for operation, respond carefully to the needs of learners and react to the entire changes of the economy regarding institutional and financial practices that can bring about effectiveness and continuity to the whole education system with regard to educational resources.

Yun (2010) argues that sustainable resource mobilisation is a strategic process that is grounded in effective organisational management, brought to life by creative communication and maintained through nurturing stakeholder relationship. This reinforces the assertion by Downes (2007) that resource mobilisation should be considered a core institutional function, rather than just a string of ad-hoc activities. International labour organisation (ILO), (2012) and Ewards and Kane (2014) say that it is not possible to provide resources necessary and keep pace with costs without bringing in money. This can be done by meeting the real costs of a project with resources other than money. It is worth noting that sustainability is not only about financial resources but also about incentives and motivation generally. In this study I viewed

sustainability as the ability of a school to continue its operation, including accomplishing education goals, expansion of its resource base and creating positive relationships with its environment. Downes (2007) notes that a variety of projects started in schools originate from governments, foundations and organisations, groups, and from individuals. So, all these must be financially supported in order to continue their existence. Ada and Ada (2013) are of the view that correct budgeting has to do with prudent management of fiscal resource allocation, office space and equipment. Even ILO (2012) supports the notion that to utilise the resource mobilisation and sustainability strategy there is need for an organisation to build capacity of the institutions and partners that coordinate and deliver services, to enable them to leverage resources from available sources including local communities, the private sector, decentralised government budgets, national and international NGOs, and other United Nation (UN) and international organisations and development partners. These strategies can be applied in schools as well. This implies that when schools expand their resources they can focus on other incentives rather than the finance that comes from government, for their continued survival. ILO (2012) adds that the implementation of a change project requires substantial amounts of resources, both financial and non-financial.

Downes (2007) and Wiley (2007) presented studies on project sustainability with various funding models.

### ***3.5.1 Downes (2007) Potential Funding Models***

*Endowment model:* in this model, the project obtains base funding. The fund administrator manages the base funding and the project is sustained from interest earned on that fund. For example, this can be raised through subscriptions from a variety of charitable foundations generating in interest for the firm. *Membership model:* a combination of interested organisations is invited to contribute a certain sum. Members contribute and in turn are granted a set of privileges, including access to roadmap decisions and documentation. This generates the operating revenue for the educational resources of the organisation, for example distribution of textbooks in schools. *Donations model:* a project deemed worthy of support by the wider community requests and receives donations. Those donations may be managed by a non-profit making organisation, like a school, which may apply to operating expenses or, may seek to establish an endowment if funds are sufficient. Such donations are often supplemented with purchases of other products like property in a school situation. *Conversion model:* this has to do with giving something away for free and then convert the consumer of the freebie to a

paying customer. This is because there is a limit to the amount of the resources that the donation model can bring. Subscribers receive services such as installation and support or advanced features of equipment. This means schools can benefit by creating partnerships with suppliers of resources and enjoy the after sales service support they can offer for certain equipment.

*Contributor-pay model:* contributors pay for the cost of maintaining the contribution, and the provider thereafter, makes the contribution available for free. The charges for this process are met by funding bodies, who calculate it to represent a certain percentage of the annual expenditure. *Sponsorship model:* open access that is available in most homes free, for example, radio and television. Various companies can support projects on sponsorship basis, often forming partnership with educational institutions. *Institutional model:* an institution assumes responsibility for resources initiative. It is based on the conviction that the dissemination of knowledge and information can open new doors to the powerful benefits of education for humanity around the world. Funding for the project represents a part of the institutions' programme, justified as constituting a part of its organisational mission. *Governmental model:* this represents direct funding from government agencies for resources, for example, United Nations Organisations and Micro project for Swaziland. *Partnerships and exchanges:* they play an important role or potential role in the development of resources networks. Such partnerships are often more or less ad hoc and liberal. Yun (2010) have the same assertion that through partnership an organisation initiates, builds and maintains long-term relationships with like-minded donors and institutions. The proposition for this study was that secondary schools can engage in various modes of funding to secure more resources in addition to the regular budgeted ones by government. This can lead to continuity of education and effective management of educational resources in Swaziland.

### **3.5.2 Wiley (2007) Potential Funding models**

*Replacement model:* this is educational content stored, disseminated, and re-used through the replacement and the use of other technology software and infrastructure such as virtual learning environments, and proprietary data repositories. Since educational institutions spend significant amounts for these replaced management systems, the cost savings resulting from their discontinued use can be employed to fund other resources. *Foundation model:* as education institutions expand to a significant size, it can seek on-going funding from foundations, philanthropic institutions, professional societies, trade or industry groups, individual firms,

governmental and/or non-governmental agencies that are focused on this particular niche. This model can be implemented by identifying an underserved segment and focus on serving that segment thus creating a differentiated product. *Segmentation model*: this model relies on the idea that while providing access to all the educational content to users, the school can provide “value-added” services to specific user segments and charge them for the services. Examples of such specific services that could be offered to schools are: sales of paper copies organised around and consulting services to provide custom education to corporate clients. *Voluntary support model*: A revenue model based on voluntary support emulates fund-raising methods used by National Radio, Television and other media outlets in the country. These media organisations can run fund-raising campaigns to raise money from conscientious users to financially support school operation.

These funding models can go a long way in assisting Swazi schools to secure enough material and physical resources. Since most of the school facilities become outdated, it means that schools can take advantage of the funding institutions to replace such resources and get modern ones in an economic way (Wiley, 2007). This can be done through the fund raising efforts to be done by the schools.

There is much that the funding institutions can learn by watching the sustainability of the educational resource initiatives. Some funding may be provided by organisations that see the school as constituting part of their mission or a free distribution that may promote or support different objectives of education. In some instances, the resource providers may believe that schools are important enough and worth funding and then offer them revenue models. Some resource providers may obtain support of third parties still in favour of the school. Examples of some of the resources needed for the school system which the resource providers may contribute include computers, furniture and vehicles for use by the organisation. But sustainability would still depend on the economies and the objectives of the provider (Wiley, 2007). This suggests that schools as learning institutions can adopt as many of such models as possible. This can help reduce most of the major costs of educational projects associated with limited fund sourcing and administration roles of schools. The revenue models when employed successfully can contribute to individual school payments and expenditure. Therefore, the development of school performance rests on the administrators and those they lead’s commitment to purchasing and maintaining school educational resources.



The funding models served as one of the theoretical lenses of this study. This is because one common feature of the funding models for school management is to do with efficiency and sustainability. The funding theories put clearly the aspects of the external and internal environments which encourage resources mobilisation. This way it means that the funding models can be applied collaboratively with other theories in order to reach the success of our education institutions in supplying enough resources but at reasonable costs. This can help school administrators to explore various strategies of curbing any challenges relating to educational resource mobilisation shortages that may exist in Swaziland secondary schools.

### **3.6 Integrating the Models of Resource Mobilisation and Management**

The theories employed were applicable to this study because of the following theoretical concepts that they convey: input, processes, output, feedback and environment; they all have a bearing on educational resource mobilisation and management. The EDSEC policy (2011) desires reduced costs and quality education for every Swazi child graduating from secondary school regardless of socio-economic background. I found these theories useful in my quest to understand resource mobilisation and management in schools.

The management of resources in schools is generally vulnerable to state and community politics because of the many social programmes that compete for limited resources. The basic argument is that educational resource management is not well understood and so the impacts of policy decisions and frameworks are often not properly evaluated (Agabi, 2010). Thus, it calls for a resourceful head teacher (manager) to secure a good bargaining position and acquire more resources from the environment for their school. Resourcefulness and abilities of the manager can be a major factor in the success of an organisation, the school in this case (Agabi, 2010). The school as an open social system has continuous interaction with the environment through inputs, processes and outputs.

As I already pointed out earlier, the evolution to a multidimensional framework to measure effectiveness is consistent with the collective need to ascertain and measure the key outcomes of organisations. Understanding organisational effectiveness requires an understanding of multiple models. Because none of the models are universally applicable, understanding the relative contributions of several different models and how these models relate to one another, is one way to appreciate the meaning of this construct (Hosseini, Ramezani, Yosefi,

Sajjadi, & Malekakhlagh, 2011). Effective management functioning is influenced by maintenance of facilities to determine areas of need of resources, financing, feedback, stakeholder involvement; availability of resources, policy directives to school resource management (Asiabaka, 2008; Yun, 2010; Bakwai, 2013). The actualisation of goals and objectives of education require the provision, maximum utilisation and appropriate management of the facilities (Asiabaka, 2008). Therefore, adoption of modern methods of facilities management by school managers is of paramount importance in this study.

Bush (2007) recommends that in periods of distribution of resources, limited funding and reduction in real resources such as staff, books or equipment, it may be possible for an institution to rely on a collegial stance. Also, the external environment certainly influences the process of management inside schools through the open-systems on internal school structures and processes. In periods of relative stability, organisations may be able to adopt the funding, and collegial approaches to effectiveness. This is the reason why the collegial models, funding models and systems models were chosen and can be applied in schools as educational organisations and social systems.

Figure 3.2 is a diagrammatic representation summarising the theories I discussed in this chapter. It includes the key variables, dynamics, factors or constructs and the presumed association between them (Maxwell, 2005, p. 33). These theories encompass the elements that schools need to achieve their goals through proper development and implementation of policies, procedures and control mechanisms (Mastry & Badalina, 2015).

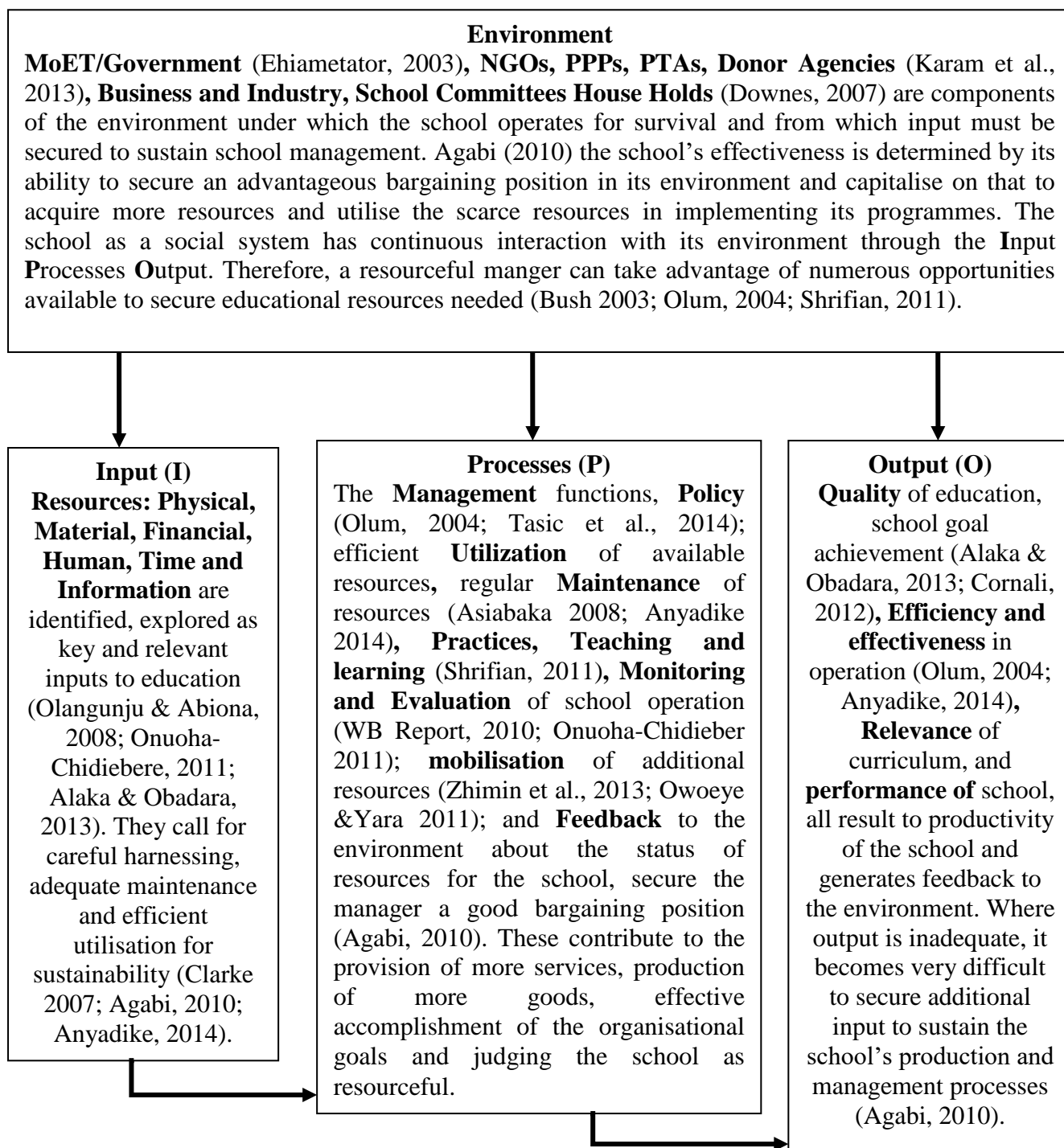


Figure 3.2: Conceptual framework to the study

Figure 3.3 shows the theoretical framework to the study combining collegial theory; systems theory; and financial theories

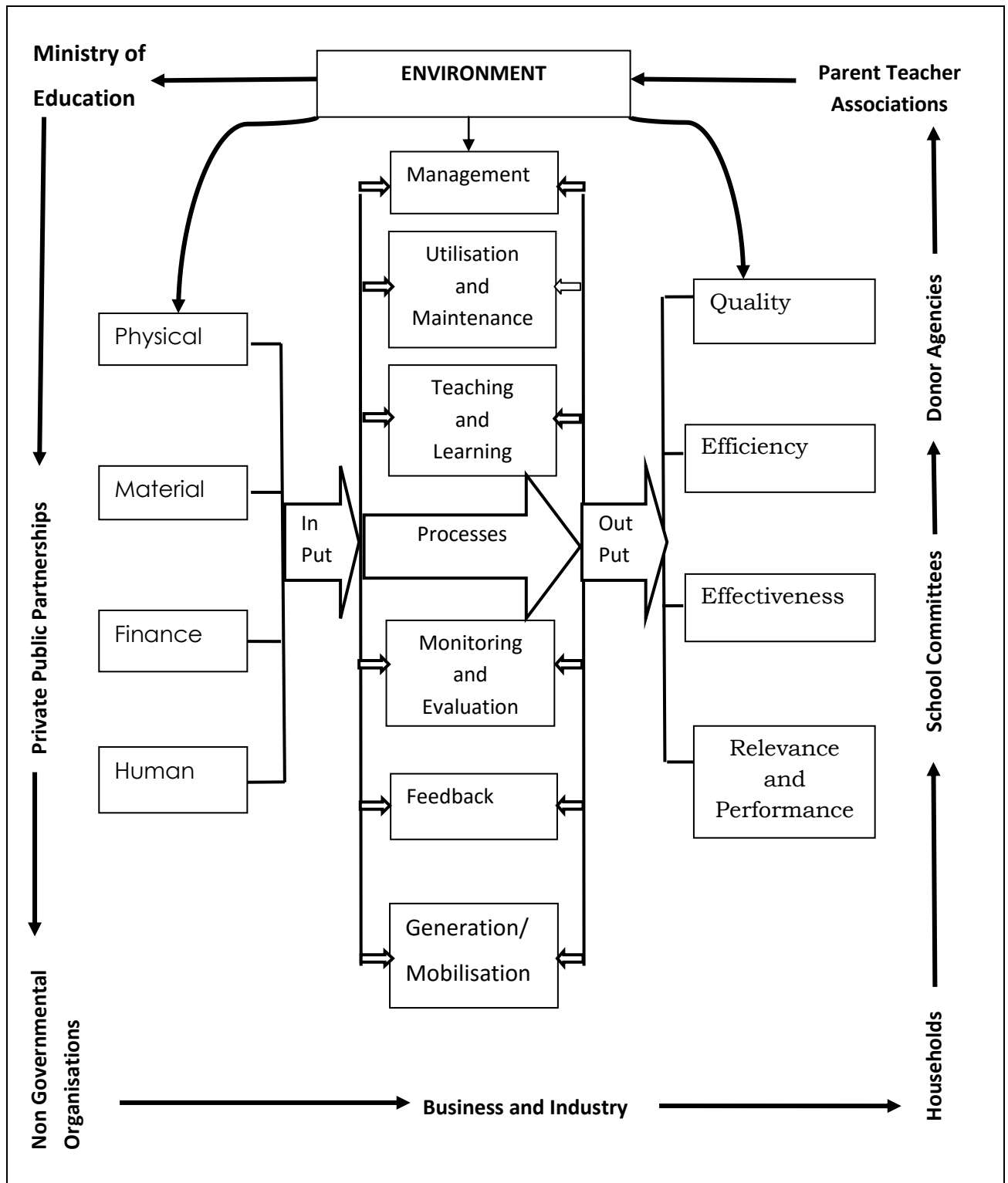


Figure 3.3: Theoretical Model of the Study

The model presents the major components of the school system which interact together for the school to succeed or get the nation's educational goals achieved and its objectives realised in providing educational resources. The framework also serves the purpose of locating the source and the linkages or the flows of any educational problem and helps to suggest ways of tackling such challenges.

### **3.7 Conclusion**

All the three models used appeared to be applicable in educational institutions like schools since they provide a comprehensive picture of the nature of management. The models include the elements of organisational goals, in that activities of schools are evaluated in the light of goals and purposes determined by senior staff and support of other teachers in their departments. With regard to organisational structure they view structures as objective realities for schools. Working relationships in schools are influenced by positions and all members having the right to participate in decision making process. Coming to environments the models consider the environment as an important aspect for survival and prosperity of schools in securing educational resources (Deacon & Fiebough, 1988; Love & Skitmore, 1996; Bush, 2003; Bush, 2006; Downes, 2007, Wiley, 2007; Varender, 2014).

The theories discussed provide distinctive but basic perspectives of school management and leadership. Cornali (2012) says for school efficiency to occur, there has to be a leadership style which will incorporate practices from different styles of leadership and which promote the development of the school through the participation and involvement of all the staff and stakeholders as well. Therefore, an administrator is to make the vision and the mission of the school known to the staff and stakeholders in order for the right knowledge and ability to be involved in the school decision making processes as well as resources needs. Improving the quality of learning requires strategies which focus on change at the school and classroom levels. Managers can no longer simply wait for instructions or decisions from government alone. The pace of change, and the need to be adaptable and responsive to local circumstances, requires managers to develop new skills and ways of working in their organisations (Yuchtman & Seashore, 1967; Olum, 2004; Seiler et al., 2007; Oyebade, 2010; Shrifian, 2011).

It can be noted that development partners have helped organisations and countries to find practical, long-term solutions to the social, economic and environmental problems they face and so this can happen to our schools. Therefore, from the theories I can say that the actualisation of goals and objectives of education require the provision, maximum utilisation and appropriate management of the educational facilities. The adoption of modern methods of resource management by school managers is of paramount too (Barney, 1991; Asiabaka, 2008; & Campbell, 2013).

The theories portray that resources are not homogenous and are limited in mobility. Therefore, since the school is dynamic and is a bundle of resources and capabilities, they can translate resources into strategic advantage if they are valuable, rare inimitable and the firm is organised to exploit these resources. It calls for schools to have developments or strategic plans which can help them identify financing gaps. Schools can be able to improve upon the existing financing mechanisms to maximise education goals. Schools also need to interact closely with their environments in order to compare and contrast what can best suit their operation in order achieve efficiency and effective resource mobilisation and management for continued education of the country.

## **CHAPTER FOUR: RESEARCH DESIGN AND METHODOLOGY**

### **4.1 Introduction**

In this chapter I aim to describe and justify the research design and methodology of this study. In the chapter I report on the research paradigm, research design, the selection of participants, the development and validation of data generation instruments; data analysis procedures, the pilot study, issues of trustworthiness and ethical considerations.

### **4.2 Research Paradigm**

According to Maree (2008) a paradigm is a set of assumptions or beliefs about fundamental aspects of reality which gives rise to a particular world-view. It addresses fundamental assumptions taken on faith, such as beliefs about the nature of reality (ontology), the relationship between knower and known (epistemology) and assumptions about methodologies. Paradigms represent what we think about the world. These are people's actions in the world, including the actions taken as inquiries. This implies that a paradigm serves as a lens or the principles by which reality is interpreted in a study.

I located this study in the classical pragmatist paradigm. Johnson and Onwuegbuzie (2009) explain that pragmatism helps to shed light on how research approaches can be mixed fruitfully, in ways that offer the best opportunities for answering the research questions. Pragmatism argues that quantitative and qualitative methods are compatible, that is, both approaches have enough similarities in fundamental values to allow their combination within a single study. Pragmatists believe that the truth is "what works" best for understanding a particular research problem. The pragmatic rule according to Johnson and Onwuegbuzie (2009) is that the current meaning or instrumental truth of an expression is determined by the experiences or practical consequences of belief in or use of the expression in the world. One can apply the sensible effects or outcome-oriented rule through thinking (thinking about what will happen), practical experiences (observing what happens in our experiences) or experiments (formally or informally trying a rule and observing the consequences or outcomes). So, in this study I adopted the outcome-oriented rule which in this case was to do with the generation and management of educational resources. Clarifications for school support on caring for the educational resources under their care could also be of great benefit. So in this

case, I adopted the pragmatism paradigm in search of understanding the process of educational resource generation and management in schools.

Pragmatism is generally regarded as the philosophical partner for the mixed methods approach. It provides a set of assumptions about knowledge and enquiry that underpins the mixed methods approaches that are passed on a philosophy of post-positivism and purely qualitative approaches that are based on the philosophy of constructivism (Johson & Onwuegbuzie 2009; & Denscombe, 2008). Denscombe (2008) argues that pragmatism provides a fusion of approaches, that is, provides for common ground and compatibility between old philosophies of research. Pragmatism provides a basis for using mixed methods approaches as a third alternative; and another option open to social researchers if they decide that neither quantitative nor qualitative research alone will provide adequate findings for the particular piece of research they have in mind. Therefore, the choice of the mixed methods research was that it challenged me not to neglect one approach over the other. The choice was also based on the research questions and on the purpose of the study.

Maree (2008) adds that the pragmatism paradigm is a method of settling metaphysical disputes that otherwise may be interminable. In other words, it considers the empirical and practical consequences when judging ideas. This means that the researcher constructs knowledge about real-world issues based on pragmatism. This places more emphasis on finding the answers to research questions than the methods used. It allows for contextual interpretation, the use of multiple methods and flexibility in choosing the best strategies to address the research questions. According to Maree (2008) pragmatism is considered the best philosophical foundation for justifying the combination of different methods within one study. Similarly, Bryman (2007) says that most mixed methods researchers depict themselves as pragmatists. Johnson and Onwuegbuzie (2009) also add that mixed methods research makes use of the pragmatic perspective, method and system of philosophy. Its logic of inquiry includes the use of induction or discovery of patterns, deduction which is the testing of theories and hypotheses, and abduction or uncovering and relying on the best of a set of explanations for understanding one's results. Thus I adopted this paradigm on the basis that it works well in mixing research methods. It allows for contextual interpretation and flexibility in choosing the best strategies to address the research questions in multiple methods (Bryman, 2007). Mixed methods in addition of supplementary techniques can increase the validity and credibility of the findings of a study (McMillan & Schumacher, 2014).



McMillan and Schumacher (2010) define mixed methods design as a research in which the investigator collects and analyses data integrates the findings and draws inferences using both qualitative and quantitative view-points and approaches. Mixed methods studies can show the result (quantitative) and explain why it was obtained (qualitative). Maree (2008) adds that the researcher collects both numeric, for example scores on the survey instrument or ratings and text information for example, open-ended interviews or observations to answer the study research questions. MacMillan and Schumacher (2014) confirm that a mixed method study combines characteristics of both quantitative and qualitative approaches to research.

Johnson and Onwuegbuzie (2009) support the idea that pragmatism is the approach which can help bridge the schism between quantitative and qualitative research. Since today's research world is increasingly interdisciplinary, complex and dynamic; researchers need to complement one method with another. Researchers need a solid understanding of multiple methods, to promote collaboration, to facilitate communication and to provide superior research. Johnson and Onwuegbuzie (2009) also add that the mixed methods research design is an attempt to validate the use of multiple approaches in answering research questions, rather than restricting or constraining researchers' choices that is, it rejects dogmatism. It is an expansive and creative form of research, not a limiting one. It is inclusive, pluralistic and complementary. It suggests that researchers take an eclectic approach to method selection and thinking about conduct of the research. Many research questions and combinations of questions are best and most fully answered through mixed research solutions (Johnson & Onwuegbuzie, 2009).

### **4.3 Research Design**

Maree (2008, p. 291) defines a research design as the 'plan of how to proceed in determining the nature of the relationship between variables'. McMillan and Schumacher (2014) highlight that a research design comprise a description of the procedures for conducting a study, including when, from whom and under what conditions the data will be obtained. It indicates the general plan of how the research is set up, what happens to the area under discussion, and what methods of data collection are used. McMillan and Schumacher (2010) also indicate that the purpose of a research design is to specify a plan for generating empirical evidence that will be used to answer the research questions; in order to draw the most valid, credible conclusions from the answers to the research questions.

In the present study I adopted a case study research design. Maree (2008) defines case study research as an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used. A case study is an in-depth exploration of a bounded system, which could be an activity, event, process, or individual, based on extensive data collection (Creswell, 2008). Baxter and Jack (2008) add that a case study design is very useful in learning about situations which might be poorly understood or about which not much is known about them. In this case, I studied the generation and management of physical and material resources in secondary schools. By the fact that it is a restricted or bounded system, this does not necessarily mean that one site only is studied (Creswell, 2008). Particularly, in this study I used six cases of government owned schools for a deeper understanding of educational resource generation and management in schools.

Maree (2008) says that in a mixed methods study the researcher gets answers to both “what” and “why” questions and can gain a more complete understanding of the research problem by comparing quantitative and qualitative findings. Numerical data for this study was included in questionnaire items on availability and condition of educational resources in schools; and text data in interviews on factors affecting mobilising and managing educational resources.

McMillan and Schumacher (2010) add that mixed methods approaches are appropriate in identifying issues, factors and relevant questions that can become the focus of a study. Using quantitative with qualitative data, a more complete understanding of the phenomenon can be developed. Hesse-Biber and Griffin (2014) are of the opinion that mixed methods design hold the promise of enhancing the validity of findings and adds a sense of authenticity to the findings obtained. McMillan and Schumacher (2010) back up that a mixed methods research is able to provide insights that are not possible when either the quantitative or qualitative approach is used independently and that the result is enhancement and clarification. Mixed methods design provides a more comprehensive picture of what is being studied, emphasising qualitative outcomes as well as the process that influenced the outcomes. The nature of the data collected is not confined to one type of method, which encourages the production of a more complete set of research questions as well as conclusions. It enhances credibility of findings from a single method and compensates for limitations with the use of a single method. In order to best understand the research problems, the mixed methods approach utilises

strategies of inquiry where data collection can either occur at the same time or in a sequence (McMillan & Schumacher, 2010; Hesse-Biber & Griffin, 2014). Most researchers agree that used in combination within a mixed methods approach, quantitative and qualitative methods complement each other and allow for a more complete analysis of the research situation (Creswell & Clark 2007; Maree 2008; Johnson & Onwuegbuzie 2009; Macmillan & Schumacher 2010).

The main approach that I used for this study was the qualitative which I used to analyse interviews and documents in the sample. Therefore, this study used the mixed methods research approach within the pragmatism paradigm to explore the dynamics of generating and managing educational resources in secondary schools. I supported the mixed methods approach because it allows for empirical and contextual interpretation and flexibility in choosing the best strategies to address the research questions. This mixed methods research paradigm also helps bridge the split between quantitative and qualitative research. The mixed methods plan holds the promise of enhancing the validity of findings and adds a sense of dependability to the findings obtained (Maree, 2008; McMillan & Schumacher, 2010; Hesse-Biber & Griffin, 2014).

I adopted a descriptive research (MacMillan & Schumacher, 2014) using a multiple case study design. A descriptive study asks the question ‘what is?’ or ‘what was?’ and describes the current or past status of something (MacMillan & Schumacher, 2010). In this case it is assumed that schools have a similar way of acquiring educational resources for learning which lead to improved performance. The choice of a case study design was informed by literature, for example, in Chapter 2, Section 2.7, I briefly report about a combination of research designs used by other researchers in related studies. Creswell (2008) contends that in mixed methods research, the researcher conducts the study in the field, where participants live and work in order to get as close as possible to participants. Therefore, using questionnaire, interviews and document analysis was predominant to understand what participants were saying and doing in the selected schools (Hesse-Biber & Griffin, 2014). The case study method also allows a study to be conducted in a natural context, and within a specific time and boundaries (Creswell, 2008). Here, the case study provided for the resource generation and management process to be investigated using multiple methods of data collection. In essence this study involved a multisite case study (Creswell, 2008), consisting of six secondary schools in which the phenomenon of head teachers (HTs) and heads of departments (HODs) resource management

experiences were examined. When a number of different cases; each school is a case (the six schools), are combined in a single study, the investigation may be called a collective, multiple, or multisite case study (McMillan & Schumacher, 2010). The use of multiple sources and techniques in the data gathering process gave greater insight and understanding of the dynamics of educational resource generation and management in schools (Creswell, 2008; & MacMillan & Schumacher, 2010). The benefits of using case studies include providing a rich picture of what is happening, as seen through the eyes of many individuals. Case studies allow a thorough exploration of interactions between treatment and contextual factors. Also a case study can help explain changes or facilitating factors that might otherwise not emerge from the data (Patton, 1999).

However, case study research has some methodological limitations. It is usually criticised for its lack of generalisation or transferability of findings because it focuses on one or a few cases. In addition, with a multiple case research, the researcher tends to look for similarities and ignore differences (Creswell, 2008). Case studies also require a sophisticated and well-trained data collection and reporting team, they can be costly in terms of the demands on time and resources and individual cases may be over-interpreted or over-generalised (Patton, 1999). Despite the inherent shortcomings, resource management researchers Agabi (2010); and Hinum (1999) continue to use the case study method fruitfully. This is owing to its strengths, such as providing a rich and detailed description of the case in a natural setting (Macmillan and Schumacher, 2010). According to Collingridge (2014) analytical generalisation is reasoned judgment about the extent to which findings in one study can be used as a guide to what might occur in another situation. It relies on logic which points out the similarities and differences between contexts. It makes extending mixed methods qualitative results to outside groups a possibility. In this study, the focus was not to generalise the findings but to seek to achieve an in-depth understanding of the management of educational resources in the selected few cases.

I also adopted five underlying principles for conducting mixed methods research as elucidated by Johnson and Onwuegbuzie (2009). (a) *Triangulation* – seeking convergence and corroboration of results from different methods studying the same phenomenon. Specifically, these were the questionnaire, individual face-to-face interview, focus group interviews and document analysis. (b) *Complementarities* – seeking elaboration, enhancement, illustration and clarification of the results from one method with results from the other method. This was done through the triangulation strategy, as elucidated by Creswell and Clark (2007) that the purpose

of the triangulation is to obtain different but complementary data on the same topic in order to best understand the research problem. (c) *Initiation* – discovering paradox and contradictions that lead to a re-framing of the research question. I used a pilot study to ascertain and minimise factors that had a negative effect on data collection and to reinforce efficacious items (Cohen et al., 2007). (d) *Development* – using the findings from one method to help inform the other method. In this case the quantitative findings helped inform the quantitative by asking questions during interviews that were left out in the questionnaire. (e) *Expansion* – seeking to expand the breadth and range of research by using different methods for different inquiry components. I used both quantitative and qualitative methods to explore experiences and challenges head teachers and heads of departments have in generating and managing educational resources in their schools. In this study, the principles helped me to complement the methods, promote collaboration of the methods as well as allowed the mix and match design components that offer the best chance of answering research questions.

## 4.4 RESEARCH METHODOLOGY

Murray as quoted in Creswell (2011, p.8) explains that, “a methodology is a body of customs, measures and rules that are normally used by those who work within a certain discipline”. McMillan and Schumacher (2010) also define research methodology as ways in which the researcher collects and analyses data. This refers to the design whereby the researcher selects data collection and analysis procedures to investigate a specific research problem. In this section I report on the delimitations of the study, research participants, data generation instruments, data analysis procedures, ethical considerations and trustworthiness.

### 4.4.1 *Delimitations of the Study*

According to the Swaziland schools list (2013), schools are categorized as: community, government, private, mission and private government aided schools. This categorisation is in accordance with the type of organisation that initiated the school, and the type of grant that the other organisations provide. EMIS (2013) defines *community* schools are those that were constructed by the community on Swazi nation land (SNL) and are managed mainly by the community. *Mission* schools are those that were initiated by missionaries. Mission schools have an input (to some extent) in the calibre of teachers that are recruited to the schools. The Education Rules (1977) define *private government aided* schools as schools that are privately owned but are supported by the government by appointing teachers. In fact, all the schools

categorised above are supported by the government, but to different extents. A *private* school is one that is founded and maintained by a private agency or nongovernmental agency; these are few in the country. *Government-owned* schools are those that were constructed and are fully supported by the government. This study involves the government owned schools.

Swaziland is divided into four geographical regions namely Hhohho, Manzini, Lubombo and Shiselweni. Government-owned schools have considerably a small number compared to the other categories. Six schools in total, three from each of the two selected regions participated in this study. In each school I targeted the HT as school manager and HODs as overseers of the various subject departments. These were considered the bearers of related information regarding generating and managing educational resources in secondary schools.

#### **4.4.2 Participants**

Maree (2008, p. 79) and Neuman (2011) define sampling as a process by which, a portion of the population is selected to be scrutinised in a study.

All four regions of Swaziland have a representation of government-owned schools. Hhohho has three; Manzini three; Shiselweni one; and Lubombo has two government schools (School lists, 2013). Six out of nine government owned schools were selected for this study using the purposive sampling technique (Creswell, 2008). Maree, (2008) emphasises that in qualitative data collection, purposive sampling is used so that individuals are selected because they have experience of the central phenomenon. Purposive sampling also involves the researcher hand-picking the participants based on exact characteristics in order to develop a sample that is large enough yet possessing the required traits. In this study I selected participants on the basis of not only accessibility but more importantly, ability to provide me with the information I sought.

According to Collingridge (2014), when generating qualitative data, participants are typically acquired through convenience and purposive sampling. McMillan and Schumacher (2010) propose that in accordance with mixed methods approach, the selection of participants is non-probability for quantitative approaches and purposive for qualitative approaches to sampling. This type of situation is called nested, because schools are located in specific regions and teachers are located in schools. This study therefore, adopted the multilevel mixed sampling (nested designs), as suggested by (McMillan & Schumacher, 2010) to locate participants in their schools and offer relevant information. I selected the schools according to their regions

and categories, that is, the government owned schools. I did this so that I could be able to select a few cases according to a list of specific criteria. Collingridge (2014) concurs that purposive sampling in non-random sampling is one that fulfils a specific purpose. Its purpose is to select participants capable of providing rich and varied descriptions of social and experiential phenomena. Maree, (2008) adds that purposive sampling involves settings, incidents, events and activities that can be included for data collection apart from the selection of participants. This study involved understanding the actions and experiences teachers had in their social context with regard to generating and managing resources. This implies that the participants' understanding of their own world is eventually communicated to other people (Creswell, 2008; McMillan & Schumacher, 2010). Table 4.1 shows the number of participating schools I selected for the study. I identified the participating schools through pseudonyms as: H1-Mass; H2-Malta; and H3-Mega, and M1-Masiko; M2-Miko; and M3-Mango.

**Table 4.1: Participants of the study**

<b>Institution</b>	<b>Number of HTs</b>		<b>Number of HODs</b>	
H1: Mass				
• Questionnaire	1		7	
• Individual interview		1		
• Focus Group interview				4
H2: Malta				
• Questionnaire	1		4	
• Individual interview		1		
• Focus Group interview				4
H3: Mega				
• Questionnaire	1		6	
• Individual interview		1		
• Focus Group interview				5
M1: Masiko				
• Questionnaire	1		5	
• Individual interview		1		
• Focus Group interview				5
M2: Miko				

• Questionnaire	1		6	
• Individual interview		1		
• Focus Group interview				4
M3: Mango				
• Questionnaire	1		4	
• Individual interview		1		
• Focus Group interview				4
<b>TOTALS</b>	<b>6</b>	<b>6</b>	<b>32</b>	<b>26</b>

#### ***4.4.3 Data Generation Instruments***

In the study I used multiple sources of evidence. According to Maree (2008) the principles of data gathering include that the researcher does not manipulate the phenomenon of interest because the research is carried out in real-life situations. I adopted three data generation instruments namely; questionnaire, individual interview and focus group interviews, and document analysis. Below I discuss each one of them.

##### ***4.4.3.1 Questionnaire***

According to Neuman (2011) a questionnaire is a tool used to describe and explain the status of the phenomena, to trace change and to draw comparisons. It is relatively cheap and easy to do, respondents and can be reached across long distances. Patton (1999) explains that a questionnaire is good for gathering descriptive data. It can cover a wide range of topics and can be analysed using a variety of existing software. However, a questionnaire may lead to biased reporting, data may provide a general picture but lack depth and may not provide adequate information on the context (Patton, 1999).

The perspectives of Head Teachers (Appendix 12) and of Heads of Department (Appendix 15) on educational resource generation and management were gathered through administering a questionnaire. The questionnaire sought to find out the availability, condition, procurement and maintenance of educational resources. It also tried to find out any factors affecting the effective management of physical and material resources and effective strategies of resource generation and management as HTs and HODs are local school managers.



The questionnaire was based on key issues that were prioritised during the literature review in Chapter Two, namely: availability and adequacy of resources; factors influencing the process of mobilising and managing educational resources; and strategies to effective resource generation and management in secondary schools. I obtained other inputs towards the construction of the questionnaire from officers at the National Curriculum Centre (NCC) Evaluation Department who had experience in research. Suggestions from these experts helped me eliminate irrelevant items and to beef up sections that were not covered adequately. After I revising the questionnaire I then gave them to a smaller group at the NCC for final comments. The instrument adopted the likert-type of rating scales.

#### **4.4.3.2 Interviews**

Maree (2008) defines an *interview* as a two-way conversation in which the interviewer asks the participants questions to collect data and to learn about ideas, beliefs, views, opinions, and behaviours of the participants. I adopted a semi-structured individual face-to-face interview approach (Appendix 13). The interview discussions were centred on the following themes: a) mobilising and managing educational resources b) factors affecting mobilisation and management of educational resources and c) sustainable practices for generating and managing educational resources in schools. The aim of utilising an individual interview tool was to see the world through the eyes of the participants and to obtain rich descriptive data that would help one understand the participant's construction of knowledge and social reality (Mengistu, 2014). Interviews usually yield rich data, new insights, details, and provide opportunity to explore topics in depth. They allow the interviewer to experience the affective as well as cognitive aspects of responses. Interviews allow the interviewer to explain or help clarify questions, thus increase the likelihood of useful responses and allow the interviewer to be flexible in administering the interview to particular individuals or in particular circumstances (Patton, 1999).

Utilising the interview tool allowed me room to probe for more information and get clarification of answers from the participants. Interviews allow the researcher to identify new emerging lines of enquiry that are directly related to the study then explore and probe them. They could guide participants to focus on aspects related to the study in case they get side-tracked by trivial aspects (Maree, 2008). Conversely, interviews can be expensive and time-consuming. The interviewee may distort information through recall error, selective perceptions, desire to please interviewer and flexibility can result in inconsistencies across interviews

(Patton, 1999). In this case, the interview schedule was also meant to complement data from the other methods.

*Focus Group interviews (FGI):* a focus group interview involves a small homogeneous group gathered to study or assess a problem. It can be used as a primary evidence-based technique in evaluation and policy studies and can be employed in any phase of planning, implementation, or in policy management (McMillan & Schumacher, 2010; 2014). The focus group interview schedule (Appendix 16) followed the same procedure as that of individual face-to-face interviews with HTs as mentioned in (Section 4.4.3.2) above. I conducted focus group interviews with HODs all of whom had a teaching experience of five years and above. The focus group interviews consisted four to six (4-6) participants from each of the selected schools.

Patton (1999) argues that focus group interviews help stimulate a richer response or new and valuable thought. They challenge the thinking of participants' illuminating conflicting opinions and participants do not withhold information but say all that is relevant or all that they know in less time. In this case, I was alone in conducting the data gathering, the volume of issues to cover was not so extensive and it was an acceptable number of targeted participants assembled in one location per school. Although interviews generally are sometimes criticised for possibly being deceptive in that participants may give information and perspectives they want the researcher to hear, (Creswell, 2008; McMillan & Schumacher 2010). The desire to please the interviewer and flexibility in interviews can result in inconsistencies (Patton, 1999). Other investigators (Agabi, 2010; & Mengistu, 2014) have continued to use interviews in their studies on resource management. This is because semi-structured interviews have the advantage of allowing the researcher to obtain detailed responses from the participants through probing (Creswell, 2008).

Each session of the interviews was planned to last for about thirty to forty minutes. In actual fact these took forty minutes per session. Focus group interview participants sat on a round table so that they could have a clear view of the facilitator and other members of the discussion group. I tape-recorded all the interview sessions. In addition, I also took notes to review answers and for additional questions and answers at the end of the interviews where necessary. Tape recording helped me with the transcriptions for analysis purposes.

#### **4.4.3.3 Document Analysis**

McMillan and Schumacher (2010) define document and artefact viewing as a non-interactive strategy for obtaining qualitative data with little or no reciprocity between the researcher and the participant. Documents are tangible manifestations that describe people's experience, knowledge, actions and values. They require imaginative fieldwork to locate relevant data. According to Patton (1999) documents are particularly useful in describing institutional characteristics, such as backgrounds and academic performance of students, and in identifying institutional strengths and weaknesses. They can help the researcher understand the institution's resources, values, processes, priorities, and concerns. Documents are also useful for determining value, interest, positions, political climate, and public attitudes. They provide information on historical trends or sequences and provide opportunity for study of trends over time (Patton, 1999). However, it is worth noting that some documents may be incomplete, inaccurate or of questionable authenticity and their access may be difficult. In this study I analysed the schools strategic or development plans and departmental stock books. These are official documents that describe the functions, values of an organisation and how various stakeholders define, in this case, the schools under investigation.

*Stock books* (Appendix 17): A stock book shows formation recorded in the school regarding inventory of resources allocated or utilised in the schools. It acts as a primary source for the management of educational resources in each of the schools, for evaluation purposes (Mengistu, 2014). According to SGRP (1978) the head of school is responsible for the care and maintenance all school stock (books, stationery, equipment, furniture, tools, etc). A stock book must be kept listing all contents of the school, giving an up-to-date and accurate record of stock. The SGRP (1978) further indicates that: a) the stock book must include all school owned property and a stock check must be taken at the beginning of each term; b) all existing school stock must be recorded and when stock is obtained, it must be entered in the stock book with date of receipt and the source. Columns must record the number or quantity of each item and losses or damages at the time of the stock check. These records and information aid in making requisitions; c) unless the stock book is kept and up-to-date, the MoET will not supply further materials or equipment to the school; d) a full stock check must be made at the time of an official hand-over (SGRP, 1978). The stock book was analysed to gather information on how school owned property is recorded; number and quantity of school resources available, and item losses or damages of the stocks or how schools keep track of their resources. Viewing on the maintenance and disposal of physical resources were also a matter of concern.

*The School strategic plan* (SSP), (Appendix 14). Reeves (2008) defines a strategic plan as a process operating in an extended time frame between three to five years which translates vision, mission and values into significant, measurable and practical outcomes (Gumbi, 2009). A strategic plan helps a school define what it intends to achieve when it comes to their learner success objectives and organisational goals. A combination of good planning and communication will ensure that all stakeholders including parents, teachers, administrators, principals, board members and community are all striving for the same goals. Successful strategic plan implementation requires proper management of budgetary and time resources, the creation of high-output teams and the consistent monitoring of all progress (Reeves, 2008).

Strategic planning for schools therefore is critical because of the following reasons as expressed by Denscombe (2008). a) The SSP expresses a shared vision, mission and values which enables all stakeholders to work towards a common vision. With a well communicated and executed strategic plan, everyone is informed of the school's goals and how their actions are contributing to the achievement of the goals, thus it encourages collaboration. b) A strategic plan effectively organises schools and their staff. This means that the plan encourages commitment by showing staff members that their work is essential to help the school succeed. c) A strategic plan defines how success is measured. A school with a strategy can monitor its progress toward key outcomes and evaluate where and how it may have gotten off track including its physical and material resources. d) A strategic plan aids a school's board with governance decisions and provides direction for the future. It means that if a strategic plan is in place, the school committee has a roadmap which it can track, evaluate and modify to facilitate better governance decisions and provide direction for the future of the school holistically. e) A strategic plan increases communication and engagement. So, communication in schools is critical so that everyone understand their responsibilities and departments are effective in coordinating their efforts. The plan also helps with fundraising, and donors would be more likely to support a school that has a clear vision and a strategy to make it happen. f) Strategic planning also provides a framework so that the most important priority of the school, the students' educational achievement is taken care of (Denscombe, 2008). This implies that a strategic plan draws attention to each school's great priority which is that of learners' high achievement and school performance.

Basically, the school strategic plan was analysed to understand the management of budgetary and time resources, the creation of high-output teams and the monitoring of progress is attained in schools regarding the physical and material resources for sustainability. Document analysis in this study was used to complement the questionnaire and interviews' findings in terms of additional data.

#### ***4.4.4 The Pilot Test***

A pilot test was conducted to determine the reliability and validity indices of the data generation instruments, including practicability of administering the research instruments (Cohen, Manion & Morrison, 2007). Specifically, the purposes of the pilot according to Cohen et al., (2007) were to:

- test the validity and reliability of the research instruments;
- assess the logistics feasibility of administering the research instruments and improve on the procedure for the study if necessary;
- gain feedback on the design and methodology for administering the study; establish the approximate duration to administer the research instruments; and
- Test the clarity and comprehensibility of the instruments' items and instructions given to the participants (Cohen et al., 2007).

McMillan and Schumacher (2014) assert that piloting provides feedback on the appearance or format of the questionnaire, the length of the questionnaire and also the time needed to complete it, test clarity and comprehensibility of the instruments' items and instructions given to participants.

I pilot-tested the instruments with secondary schools which were not part of the sample and the instruments were assessed by an external party (Annex 11). I tried out the research instruments in two schools on HTs and HODs other than the ones in the sample of the study. I used the results from the piloting to revise the questions. I also used the results to determine the approximate duration of each instrument. Pilot test results also helped me to check for possible logistics problems before conduction the actual study. Piloting was also critical because it helped to minimise factors that had a negative effect on the data collection process, and to reinforce efficacious items. Piloting was meant to test whether the participants interpreted the questions correctly and whether response categories provided were suitable in addressing the research questions.

#### **4.4.5 Triangulation Strategy**

Triangulation is used such that the strengths of one method offset the weaknesses of the other, so that together they provide a more comprehensive set of data (McMillan & Schumacher, 2010). Creswell and Clark (2007) argue that the purpose of triangulation is to obtain different but complementary data on the same topic in order to best understand the research problem. In this study I adopted the concurrent triangulation strategy by conducting a quantitative descriptive survey in the form of a questionnaire and a qualitative study by means of semi-structured interviews for HTs and focus group interviews for HODs. This helped me to compare and contrast the different findings in order to identify themes and trends, allowing for much stronger, well validated and credible conclusions (Maree, 2008). McMillan and Schumacher (2010) add that the quantitative results enhance generalisation and qualitative results help explain context.

#### **4.4.6 Data Generation Procedures**

The first session, *Stage 1* of data generation procedure for this study, was to obtain research information from HTs and HODs using a questionnaire. I personally delivered the questionnaire to participants giving them time to respond on their own and being able to express themselves freely without any interference. Participants were given the two weeks before the next stage of the data generation procedure followed. Giving participants enough time with the questionnaire aimed to control the non-response error (Maree, 2008; & Collingridge, 2014). The research purpose, process and data collection methods were explained with each individual participant during the delivery of questionnaire (ref. consent letter, Appendix 10).

*Stage 2* involved individual interviews with HTs and focus group interviews with HODs. I first collected the questionnaire that was issued to participants two weeks earlier. I introduced myself to the participants and specified the significance of the interviews. Head teachers were interviewed on a one-on-one basis while HODs sat on a round table during each of the focus group interviews so that they could all be accessible to me the facilitator. I tape-recorded and made notes as each interview session proceeded.

The last session, *Stage 3* involved document analysis. I reviewed the documents I identified earlier in Section 4.4.3.3. The guide to long term operation of each school was explored on

details of the school's mission, vision, goals and objectives; and physical and material resources sustainability. The focus was on determining practices regarding management of educational resources.

Using the same participants helped me corroborate the information obtained through the questionnaires (Creswell & Clark, 2007, Neuman, 2011). Combining quantitative and qualitative methods helps the researcher to observe something from several angles and to acquire multiple measures of the same phenomenon by applying different research measures called triangulation (Maree, 2008; McMillan & Schumacher, 2014; Neuman, 2011). The purpose of conducting a document analysis was to triangulate and supplement data from interviews and questionnaire. Analysing the documents gave an indication of whether participating schools were following policy recommendations for their daily functioning and success. These documents were analysed to determine schools' compliance with SGRP (1978) of MoET on the suggestions regarding secondary school operations.

#### ***4.4.7 Data Analysis Procedures***

Maree (2008, p. 295) explains data analysis as:

“...[the] process of observing patterns in the data, asking questions of those patterns, constructing conjectures, deliberately collecting data from specifically selected individuals on targeted topics, confirming or refuting those conjectures, then continuing analysis, asking additional questions, seeking more data, furthering the analysis by sorting, questioning, thinking, constructing and testing conjectures, and so forth”.

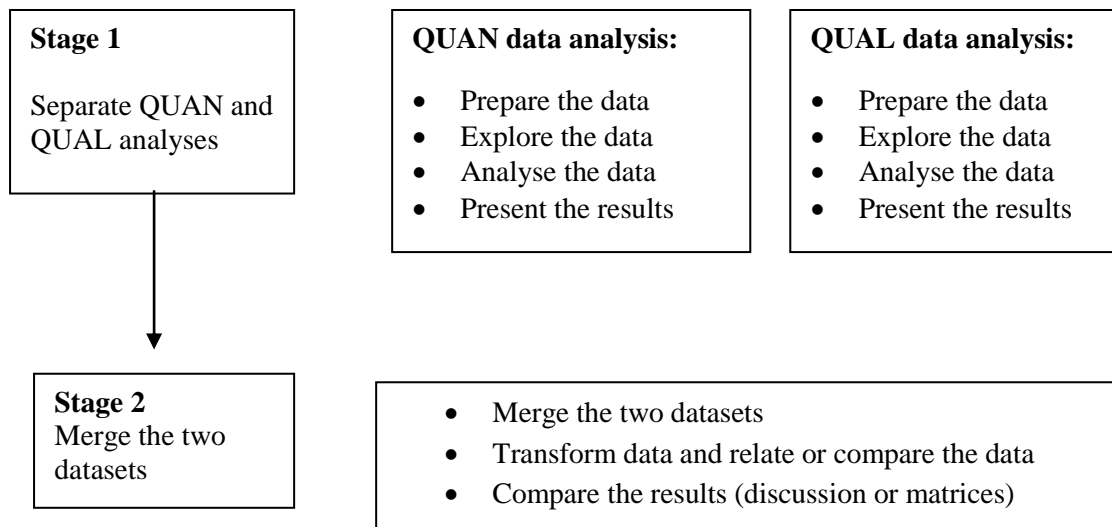
Data analysis in mixed methods research consists of analysing the quantitative data using quantitative methods and qualitative data using qualitative methods (Creswell & Clark, 2007; Maree, 2008). As I reported earlier, I used the concurrent data analysis procedure (Creswell & Clark, 2007; McMillan & Schumacher, 2010). The procedure (Creswell & Clark, 2007, p. 136) is as follows: “each of the quantitative and qualitative data bases are analysed separately. The two datasets are merged so that a complete picture is developed from both datasets. Answer questions related to data convergence, the extent to which similar types of data confirm each other and the extent to which open-ended themes support survey results. Finally transform one type of data to make the qualitative and quantitative datasets comparable and then compare the datasets”.

Johnson and Onwuegbuzie (2009) suggest that the mixed methods research process model incorporates stages to conceptualise the data analysis process. (a) *Data reduction*: which involves reducing the dimensionality of the qualitative data (e.g. via exploratory thematic analysis, memoing) and quantitative data (e.g. via descriptive statistics, exploratory factor analysis, and cluster analysis). (b) *Data display*: it involves describing pictorially the qualitative data (e.g. matrices, charts, graphs, networks, lists and rubrics) and quantitative data (e.g. tables, graphs). In this case a combination of the data reduction, and data display were used to analyse data. Descriptive statistics such as graphs and tables were used to analyse quantitative data. The thematic approach and codes were used to analyse qualitative data (c) *Data correlation*: this involves the quantitative data being correlated with the qualitated data. This is followed by data consolidation. For this study, data correlation happened when I reflected on the theoretical framework in Chapter Six. (d) *Data consolidation*: this is where both quantitative and qualitative data are combined to create new or consolidated variables or data sets. (e) *Data comparison*: This stage involves comparing data from the qualitative and quantitative data sources. (f) *Data integration*: this characterises the final stage, whereby both quantitative and qualitative data are integrated into either a coherent whole or two separate sets (that is, qualitative and quantitative) of coherent wholes (Johnson & Onwuegbuzie, 2009). In this study, the data consolidation, data comparison and data integration stages were combined and compared to create a new data set forming a coherent whole.

I analysed the data from the listed instruments as described in (Section 4.4.3.1 through 4.4.3.3) as follows: I analysed the quantitative and qualitative data concurrently, that is, at about the same time. For quantitative data I adopted descriptive statistics involving frequencies and percentages. Qualitative data involved content analysis that is, transcribing texts from interviews and document analysis into word processing files. I then grouped the qualitative responses into themes (labelling ideas so that they reflect increasingly broader perspectives) and developed them into related codes (categories/broader perspectives) and then tabulated for each research question (Creswell & Clark, 2007). Thereafter, both the qualitative and quantitative data were interpreted together once all the data was collected, captured and processed. The statistics combined with the qualitative analysis processes helped to answer the research questions.



Figure 4.1 shows a summary of the data analysis procedure in the concurrent triangulation strategy.



*Adapted: Creswell and Clark (2007)*

Figure 4.1: Concurrent Triangulation Data Analysis Procedure

#### 4.5 Ethical Considerations

Mauther, Birch, Jessop and Miller (2002) define ethics as the application of general rules and principles, and the internalisation of moral principles by the researcher. These are a set of moral principles adopted by the researcher while carrying out a study. McMillan and Schumacher (2010, p. 117) indicate that “...ethics are concerned with beliefs about what is right or wrong from a moral perspective”. According to Cohen et al., (2000), ethical issues emanate from the type of challenges being investigated, as well as the methods used to obtain valid and reliable data.

Before data generation commenced, I obtained ethical clearance from the Humanities and Social Sciences Research Ethics Committee (HSSREC) of the University of KwaZulu-Natal (Appendix 9). The processes of obtaining informed consent, protecting the participants from any harm and measures of ensuring confidentiality were applied.

#### ***4.5.1 Informed Consent and Voluntary Participation***

De Vos, Strydom, Fouche, Delport (2005) clearly define informed consent that it entails an explanation to the respondents of the goal of the study, and all possible advantages and disadvantages of engaging in it.

Therefore, I personally contacted participants requesting their willingness to participate in the study. First, I obtained permission from the gate keepers. These included the MOET (Appendix 1 & 2) who had to be aware of all activities undertaken in schools. Secondly, I asked the Head Teachers of the participating schools for authorisation to use their premises to conduct the research (Appendices 3 to 8). I provided participants with adequate information including the objectives of the research study, as well as possible anticipated advantages and disadvantages of partaking in the research. In the process of observing ethics, I sent letters to the REOs of the two regions, requesting for permission to collect data from HTs and HODs of the schools under sample. I presented participants with a letter requesting informed consent, in which the research process was described. I requested the participants to read the letter, ask questions to gain clarity and sign the consent forms if they were willing to be involved in the research. The letter informed participants about approximate time and expectations for data collection and the plans for using the results (Creswell, 2008). I emphasised to participants the fact that they were free to withdraw at anytime during the process if they desired to do so. Thereafter, most participants consented to take part in the study.

#### ***4.5.2 Protection from Harm***

Schulze (2002b) argues that respondents engaged in a research study should not be exposed in either emotional or physical harm during the data collection processes. In this case, I ensured that participants were not exposed to any undue physical or psychological harm (Maree, 2008). The questionnaire and interview schedules for this study were constructed in a manner that did not extricate information that would expose respondents to any emotional or physical harm. During the study, I made every effort to be honest, respectful and sympathetic towards all participants. I provided the opportunity to participants who required debriefing after interview.

#### ***4.5.3 Privacy, Confidentiality and Anonymity***

Schulze (2002b, p.18-19) suggests that information obtained from the respondents should be regarded as confidential unless otherwise agreed upon through informed consent. Maree (2008) adds that both the researcher and participants must have a clear understanding regarding the

confidentiality of the results and findings of the study. Therefore, all participants' information and responses shared during the study were presented in pseudonyms in order to protect their identities. These included the identity of the schools, participants, and label audio-recordings, as well as in the process of analysing and reporting data not being exposed. All audio-recordings were kept in a safe and secure place until the study was complete. In addition to the ethical aspects discussed under (Section 4.5.1 to 4.5.3), I continuously conducted the research according to the HSSREC statement provided by the Faculty of Education of the University of KwaZulu-Natal.

#### **4.6 Trustworthiness**

I adopted a few techniques in order to meet the standards of trustworthiness of the inquiry (Creswell, 2008). Validity within mixed methods context is the ability of the researcher to draw meaningful conclusions from all of the data in the study (Creswell & Clark, 2007). In mixed methods research, trustworthiness of the data should include the various topics discussed under both the quantitative and qualitative approaches (Neuman, 2011). Baxter and Jack (2008) say that the use of multiple data generation methods strengthen the credibility of the data, compensates for individual limitations and exploits the respective benefits of each method.

Trustworthiness refers to the way in which the investigator is able to persuade the audience that the findings in the study are worth paying attention to and that the research is of high quality, and dependability refers to the degree to which the reader can be convinced that the findings did occur as the researcher says they did (Maree, 2008). Olatoun (2011) describes internal validity as the accurate presentation of a particular context or event as described by the researcher. Reliability has to do with accuracy, stability and consistency of a measuring instrument (Olatoun, 2011).

Therefore, the validity, dependability and reliability of the study were assured mainly through triangulation the strategy to provide reliable findings and to determine any discrepancies in the findings. As I reported earlier, I employed different methods of data generation including questionnaire, interviews, focus group interviews and document analysis to increase credibility of the findings and consistency of results with the data (McMillan & Schumacher, 2010; 2014). Other strategies involved the tape-recording of interviews in order to get accurate and relatively complete records which also enhanced the trustworthiness of the findings (Olatoun, 2011).

In this study, the data instruments were also validated by employing an external viewer (Appendix 11), to ensure that the report provided is accurate and can be trusted and is credible to ensure measuring what they were supposed to measure, thus ensuring content validity (Olutoun, 2011). Evidence for each theme was put together with abet from several colleagues familiar with qualitative research and content area of the research (Creswell & Clark 2007). Therefore the processes of validation and piloting further improved the validity and reliability of the study.

#### **4.7 Conclusion**

In this chapter I described the research design and methodology encompassing this study. The mixed methods (quantitative and qualitative research) paradigm adopted on the basis of the pragmatism was discussed. The multiple site case study research design adopted for this study was discussed. The purpose of developing and validating the research instruments using quantitative and qualitative techniques, were elucidated and the sampling procedures were described. The purpose of piloting data generating instruments, how the process was undertaken and giving the results of the pilot were also explained. Participants of the study described as HTs and HODs of government owned selected secondary schools in two regions of Swaziland were defined.

The data analysis procedures for quantitative data was analysed using the descriptive statistics; and qualitative data analysed by developing thematic areas and coded were also elucidated. Data mixing procedures through synthesising by integrating qualitative and quantitative interpretations were also elaborated upon. The processes of validity, dependability and reliability of the study assured through triangulation, validation and piloting were clarified. Issues of ethical consideration, ensuring confidentiality and getting informed consent from participants were considered and trustworthiness procedures were discussed. In chapter five I present the results and discussions of the quantitative and qualitative data concurrently.

## **CHAPTER FIVE: DATA PRESENTATION AND DISCUSSION**

### **5.1 Introduction**

In this chapter I present and discuss data. Head Teachers (HTs) and Heads of Department (HODs) were the participants in the study. Data were generated from the participants through the use of three instruments namely: a questionnaire, interviews and document analysis. The data generation process took the following process: questionnaires for HTs and HODs were administered first, followed by face-to-face interviews with HTs then focus group interviews (FGIs) with HODs and document analysis in the schools under study. This process was followed to strengthen the validity of data and broaden the scope of results from HTs (school managers) and (HODs) the middle managers of schools.

The questionnaire comprised five sections. Section A, required participants' demographic information. The physical and material resources state of affairs was contained in section B. Section C was about the management of physical and material resources. Factors affecting the effective and efficient management of physical and material resources were in section D. Section E comprised physical and material resource sustainable practices regarding their generation and management.

I categorised the qualitative data responses into four main themes. There were Six HTs from six schools whom I interviewed using individual face-to-face interviews. There were thirty-two HODs who participated through focus group interviews (FGIs) and were selected from the same schools. These views were triangulated in order to develop a deep understanding of the phenomenon under study. I also analysed documents as supplementary data source to the other methods.

I begin with biographical information for both HTs and HODs participants. In the subsequent themes is present and discuss quantitative and qualitative data concurrently. I do so in conjunction with the research questions and with reference to the theoretical framework and other literature. In each section I begin with responses from HTs questionnaire. This is followed by responses from HODs. Where applicable and as the chapter progresses, I report on and discuss documentary evidence. Finally I discuss issues emerging from the entire process. I identify both the schools and participants through pseudonyms.

I present quantitative data through frequencies (f) and percentages (%). I present findings in aggregated form for the quantitative data because there were common issues appearing from the responses. For qualitative data I present responses largely through participants' own words. As I explained in Chapter 1 (Section 1.6) I use the term 'dynamics' in this study to refer to the factors affecting the generation and management of educational resources in the selected schools. It is also worth mentioning that HTs were responding as school level managers while HODs responded as departmental level managers.

## 5.2 HTs and HODs Biographical information

This section addresses aspects of the biographical information regarding sex, teaching experience, academic and professional qualifications of participants, staff complement and enrolments in the schools under study.

### 5.2.1 HTs' Biographical Information

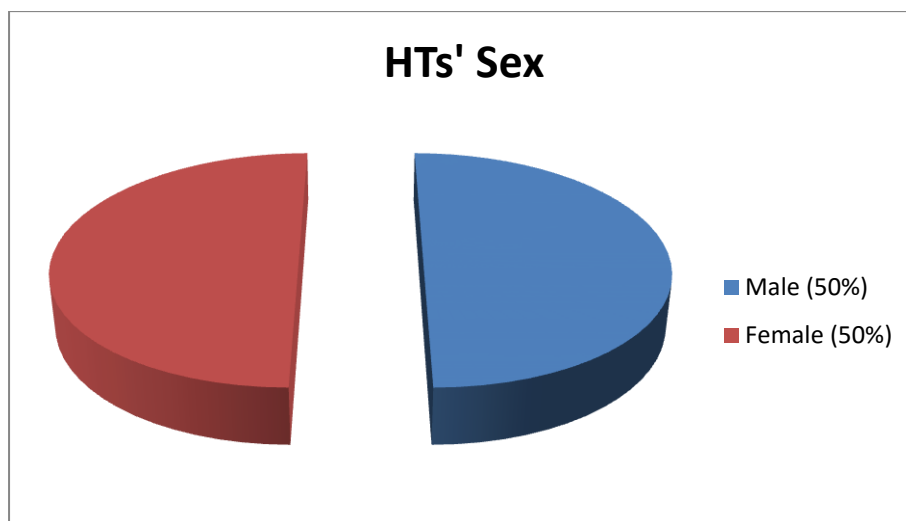


Figure 5.1: HTs' Sex

There were three female and three male HT participants in the study.

### *HTs' Experience*

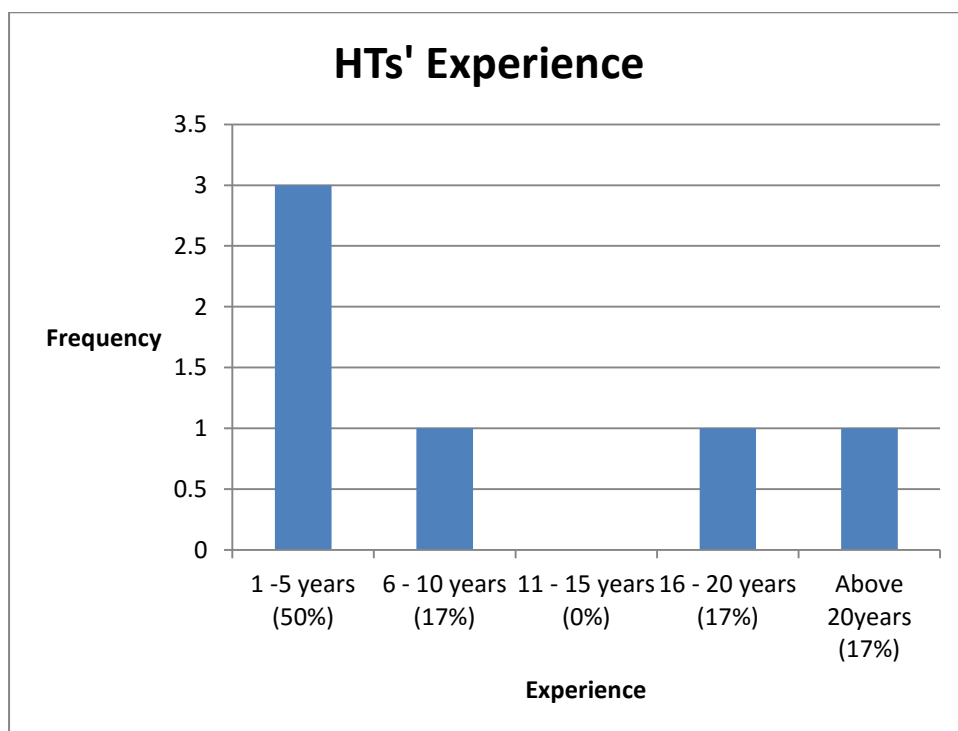


Figure 5.2: HTs' Experience as Heads of School

Three HTs had 1-5 years; one had 6-10 years; one had 16-20 years and another one had 20 years and above experience as heads of the schools under study.

### *HTs' Academic Qualifications*

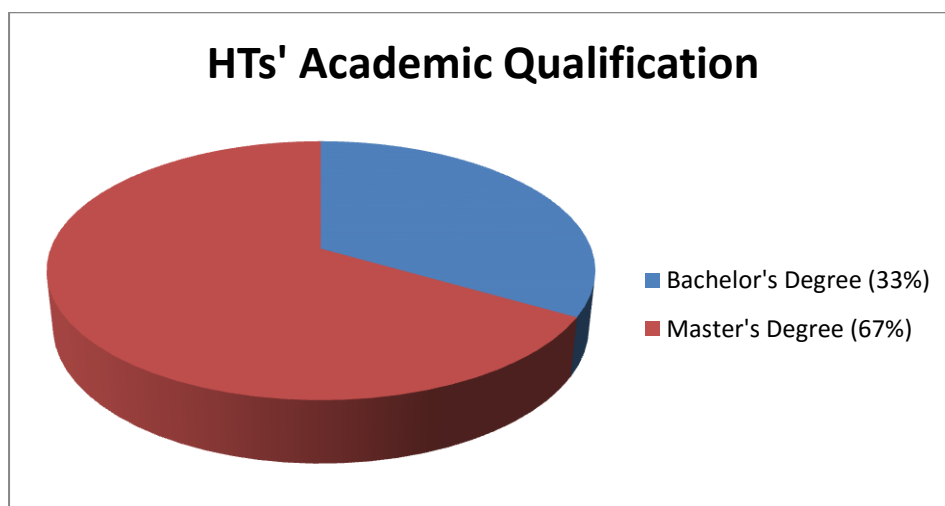


Figure 5.3: Highest Academic Qualifications of HTs

Out of six HTs, two had a Bachelor's degree and four had a Master's degree.

### *HTs' Professional Qualifications*

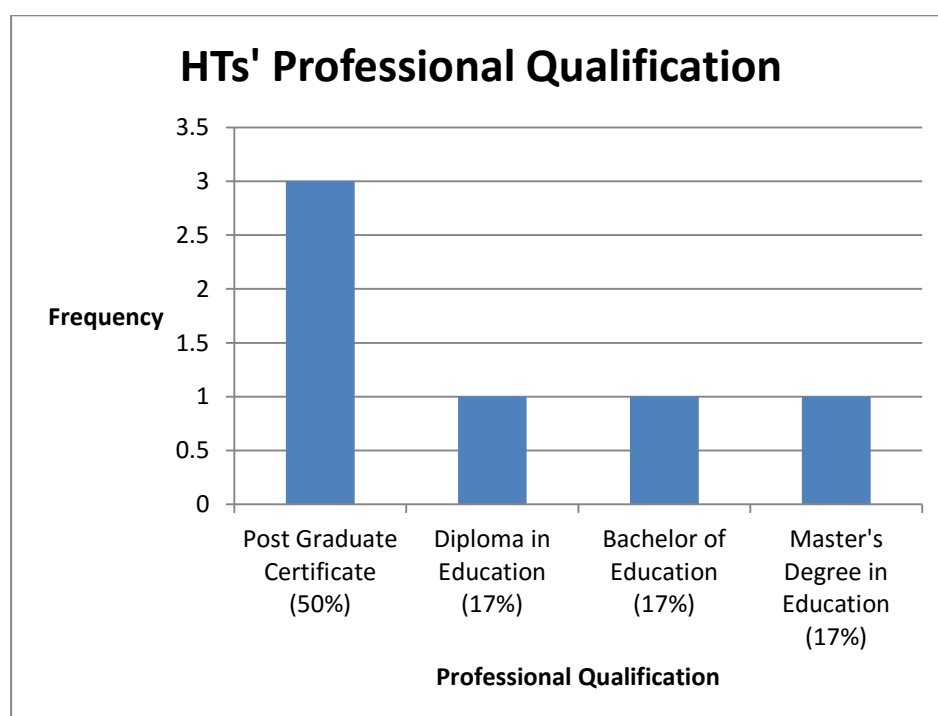


Figure 5.4: HTs' Professional Qualifications

Out of the six HTs participating, three had a Post Graduate Certificate; one had a Diploma in Education; one a Bachelor's degree; and one a Master's degree in Education. Overall, the participants were well qualified to be able to understand the management of resources and therefore contribute up to expectation and meaningfully to the study.

### *5.2.2 HODs' Biographical information*

#### *HODs' Sex*

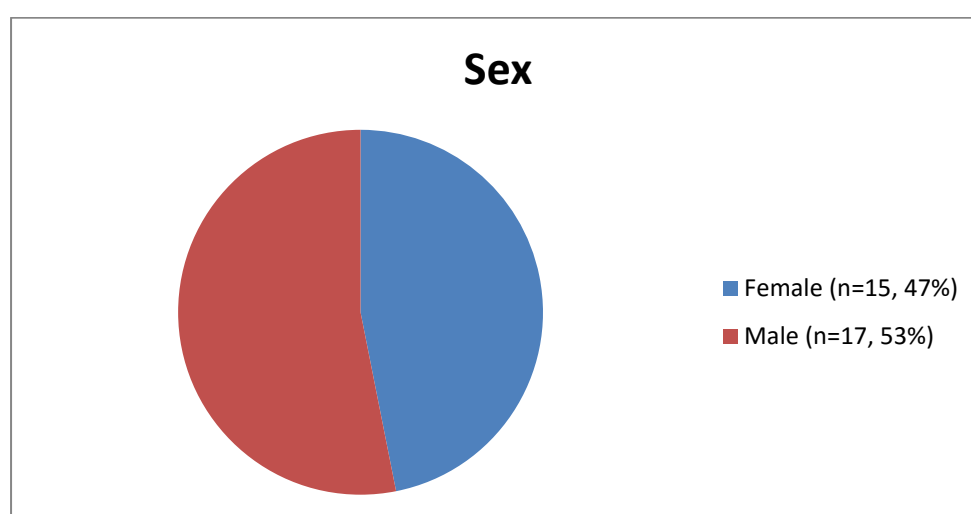


Figure 5.5: HODs' Sex

Out of 32 participating HODs, 17 (53%) were males and 15 (47%) were females.



### *HODs' Experience*

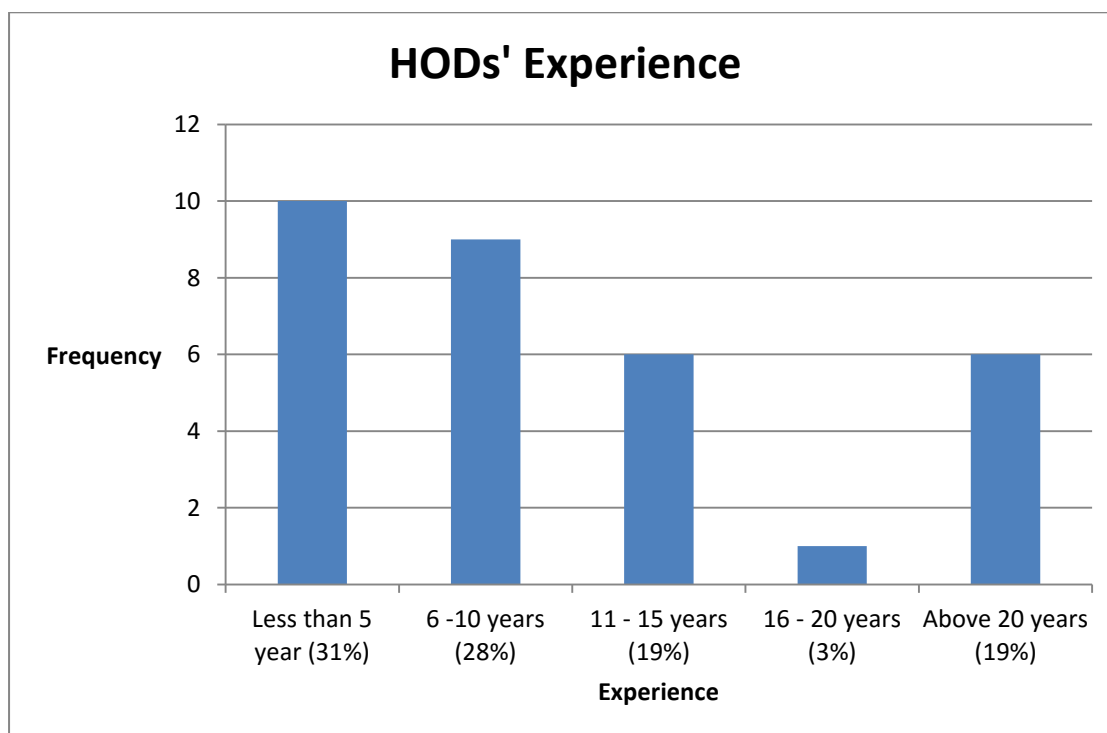


Figure 5.6: HODs' Experience as Leaders in their Departments

Out of 32 HODs, 10 (31%) had less than 5 years; 9 (28%) had 6-10 years; 6 (19%) had 11-15 years; 1(3%) had 16-20 years and 6 (19%) had twenty years and above, experience as Heads of Department in their schools.

### *HODs' Academic Qualifications*

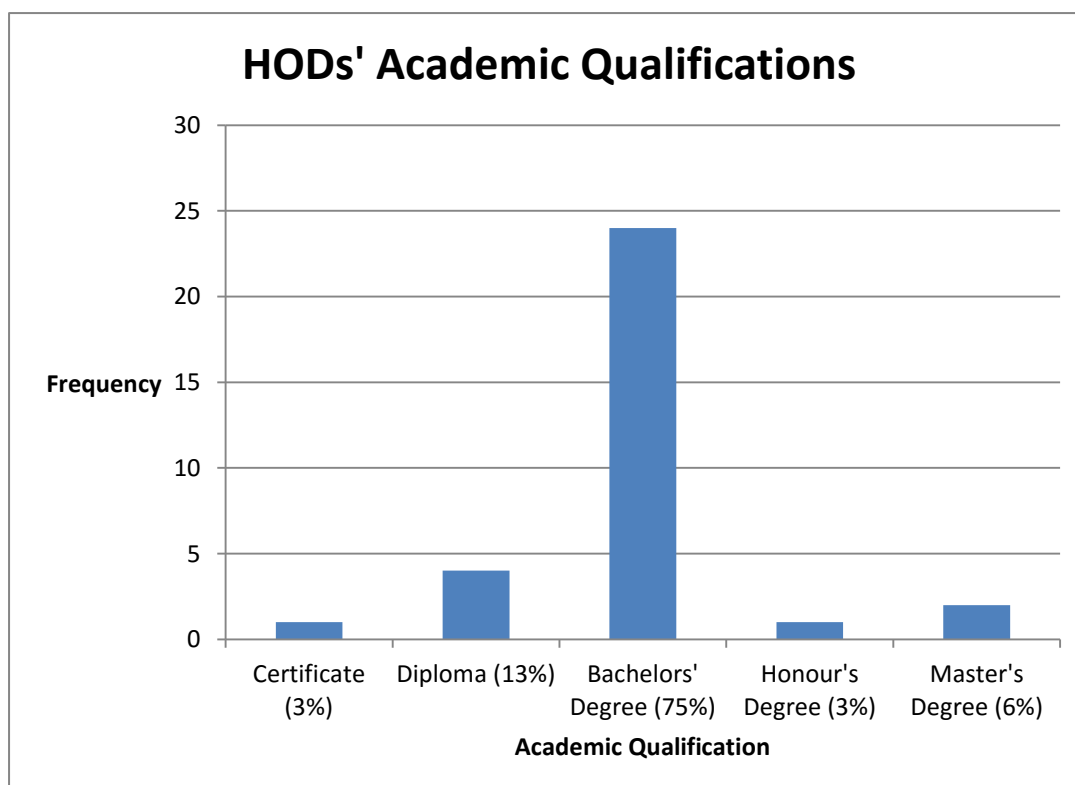


Figure 5.7: HODs Highest Academic Qualifications

From the 32 HODs, 1 (3%) had a Certificate; 4 (13%) had a Diploma, 24 (75%) had a Bachelor's degree, 1 (3%) had an Honour's degree and 2 (6%) had a Master's degree as their highest academic qualifications.

***HODs' Professional Qualifications***

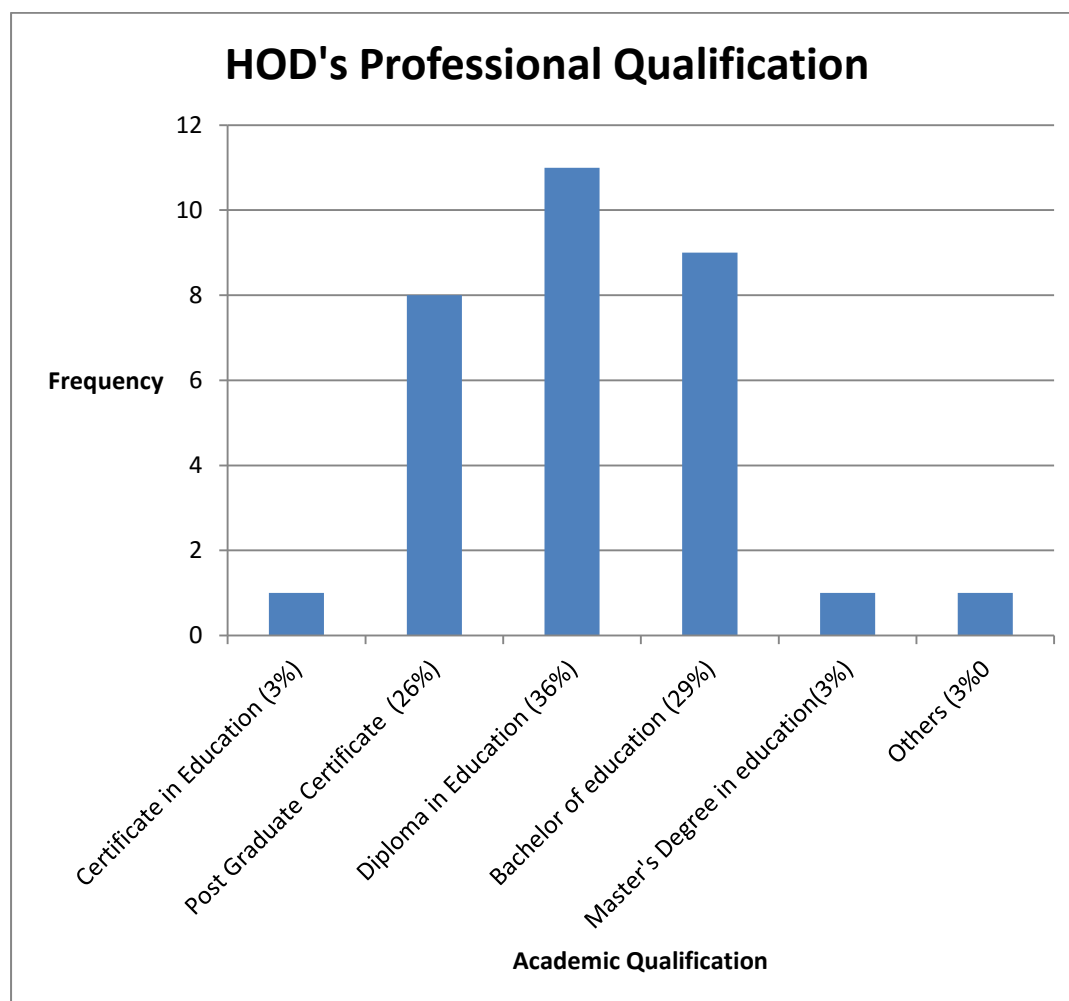


Figure 5.8: HODs' Professional Qualifications

Of the 32 participating HODs, 1 (3%) held a Certificate in education; 8 (26%) held a Post Graduate Certificate; 11 (36%) held a Diploma in Education; 9 (29%) held a Bachelor of Education and 1 (3%) held a Master's degree as their highest professional qualifications. HODs biographical information showed that participants were experienced in the teaching profession

and were appropriately qualified to understand the generation and management of resources and contribute meaningfully to the study.

The biographical information of participating HTs and HODs gives an impression that most of them were qualified for the work they did. This gives an expectation of a positive impact and smooth operation in schools regarding resource generation and management.

### **5.2.3 Staff Compliment and Enrolment in the Schools**

To understand the availability and functionality of educational resources in the selected schools, I first needed to know the staff complement and enrolments in each school. This was important to aid in the comparison between resource availability and the number of learners and teachers in schools as revealed in Table 5.1.

**Table 5.1: Staff Complement and Enrolments in the Schools**

<b>Institution</b>	<b>No. of Teachers</b>	<b>No. of Learners</b>	<b>Learners per Class</b>
<b>Mega High School</b>	84	1300	35
<b>Mango High School</b>	39	710	47
<b>Mass High School</b>	42	618	36
<b>Miko High School</b>	31	394	28
<b>Masiko High School</b>	82	1600	50
<b>Malta High School</b>	53	730	43
<b>Average</b>	<b>51.17</b>	<b>892.00</b>	<b>41.5</b>

The average staff complement was 51 per school. The average enrolment was 892.00 and the average number of learners per class was 42. The EDSEC policy (2011) stipulates that the primary policy objective of the MoET is to achieve a sustained, average teacher/pupil ratio of 40:1 in all schools. Thus, the teacher-pupil ratio in the schools was in-keeping with the policy.

## **5.3 Theme One: Perspectives on Sourcing of Resources**

The key issue in this theme was to examine how educational resources were acquired or sourced for the operation of the schools. HTs were asked about the main sources of generating educational resources and HODs were asked about other supplementary sources of sourcing the resources in schools.

### 5.3.1 HTs' Perspectives on Sourcing Resources

**Table 5.2: HTs Responses on Sourcing Educational Resources**

Source	No of Responses	Not at all (f)	Little Extent (f)	High Extent (f)	Very High Extent (f)
<b>Government grant</b>	5	1	4	-	-
<b>Parents payments</b>	5	-	-	1	4
<b>Fundraising initiatives</b>	6	3	2	-	1
<b>Community partnerships</b>	5	5	-	-	-
<b>Local and International grants</b>	5	4	1	-	-

Table 5.2 shows that five out of six HT participants reported that their schools got educational resources from school fees. Only to a little extent did the schools get resources from other sources such as grants, fundraising activities and community partnerships.

Interviews with HTs on the matter of acquiring teaching and learning resources revealed that they resources came from parents' school fees payments.

*We acquire resources through parents' school fees payments.* (Mango HT).

Malta school HT also expressed the same sentiment:

*Resources come from school fees.* (Malta HT).

One HT revealed a notion of donations:

*We sometimes but rarely, get donations from government like computers and printers.*  
(Mass HT).

HTs' responses indicated that, to a high extent resources were acquired through internal sourcing activities that is, parents' payment of school fees. One school reported that they got

some resources from local and international grants. This suggested that schools could draw resources from external sources. Having known the main source of funding, I then went on to ask HODs about other means of sourcing resources at departmental level if any.

### 5.3.2 HODs' Perspectives on Sourcing Resources

**Table 5.3: HODs Responses on Sources of Educational Resources**

Source	N	Strongly Disagree		Disagree		Agree		Strongly Agree	
		f	%	f	%	f	%	f	%
School gets proceeds from garden	30	9	30	12	40	6	20	3	10
School gets proceeds from the school projects	30	2	7	10	33	12	40	6	20
School stage plays to raise funds	31	10	32	12	39	7	23	2	7
Parent Teacher Association funding school operations	30	9	30	9	30	9	30	3	10
School partners with suppliers to offer support services for school activities	30	3	10	9	30	15	50	3	10
School gets financial support from business people	31	7	23	10	32	10	32	4	13
School gets financial support from alumni	31	11	36	14	45	4	13	2	7
School gets financial support from charity	32	4	13	14	44	13	41	1	3
School gets financial support from	31	3	10	3	10	18	58	7	23

government for its  
operations

School rent out facilities to get income	30	6	20	5	17	9	30	10	33
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A total of 25 (81%) participating HODs either strongly agreed or agreed that their departments mobilised resources through financial support from government. Another 18 (63%) said they rented out facilities to get income. They also got proceeds from school projects and partnered with suppliers to offer support services for school activities.

On the other hand, a total of (25) (81%) participants reported that alumni, school fundraising activities, parent teacher association (PTA), staging plays and charities were not sources for their educational resources.

According to FGIs, one area of general agreement among HODs was that from school fees payments, there were fees allocated per subject that catered for each department needs. In this regard, one of them had the following say:

*Subject fees are used to buy current assets like perishable goods and stationery. The fixed assets are left to be decided upon by the office of the HT. (Masiko HOD 4).*

On the same matter some HODs reported that they benefited from the Ministry. One of them said that they reported their department resource needs to the regional subject Inspector who then moved the request further to the Senior Inspector.

*We report our resource requirements to the regional Inspector. This is taken further to the office of the Senior Inspector who then provide some of the big items we need like refrigerators for our practical's in the Consumer Sciences department. (Miko HOD 4).*

Another HOD explained:

*We sometimes receive donations for our department needs from the French cultural services through the Inspectorate office. (Mega HOD 6).*

A key dynamic emerging here is that basically most resources were generated internally in the schools. The capacity for generating extra resources was very limited.

NCVO (2015) suggests that non-profit making organisations can consider fundraising that is effective, economic, legal and ethical for example, the use of such sources as gifts and donations, grants, loan financing and equity capital, contracts and trading for the organisations to overcome financial challenges. In this case, it seemed that in the Swaziland system of education vigorous fundraising among the schools was not popular. The question is how sustainable is the way things were done in the schools? From the background to the study, (Section 1.2) the WB Group (2013) argues that most countries in the developing world face challenges of sourcing resources. This is consistent with the view of Sontang-Padilla, Staplefoote and Morganti (2012) who suggest that non-profit organisations like schools depend on diverse sets of funding sources and streams of funding to sustain their operations. This suggests that such organisations may consider innovative fundraising techniques like fostering relationships with investors for support. The need for additional funds in schools is discussed in the subsequent theme (Sections 5.4.1 and 5.4.2) on the availability and adequacy of educational resources.

## **5.4 Theme Two: Availability, Adequacy and Management of Resources**

In this theme I focus on the availability, adequacy and management of educational resources in the schools. In this context ‘availability’ refers to the number of resources in the schools. The term ‘adequacy’ refers to whether the number is suitable for the size of school. ‘Management’ is to do with the way resources are looked after, kept and maintained in the schools.

### ***5.4.1 HTs Perceptions on Resource Availability***

In table 5.4 I present responses regarding the availability of resources in the schools. I use the following symbols to indicate responses: check marks (√) means the resource is available of resources; (X) means ‘unavailable’; (N/A) indicates not applicable; (-) indicates no response and frequency is shown by (f).

**Table 5.4: Availability of Resources as Indicated by HTs**

Resources	Mega School		Mango School		Mass School		Miko School		Masiko School		Malta School	
		(f)		(f)		(f)		(f)		(f)		(f)
Library(s)	-	-	√	1	√	1	√	1	√	1	√	1
Science laboratory (s)	√	4	√	2	√	2	√	4	√	6	√	6
Home Economics Laboratory(s)	√	3	√	1	√	1	√	2	√	3	√	2
Agriculture laboratory(s)	√	2	√	1	√	1	√	1	√	2	X	N/A
Computer laboratory(s)	√	2	√	1	√	1	√	1	√	1	√	3
Computers	√	124	√	60	√	23	√	40	√	75	-	-
School gardens	√	2	√	1	√	1	√	1	√	3	X	N/A
Classrooms	√	37	√	15	√	17	√	14	√	32	√	17
Extra rooms for teaching	√	2	√	1	√	0	√	1	X	N/A	√	4
Technical workshop(s)	√	3	√	1	√	1	X	N/A	√	3	√	1
Strong rooms	√	1	√	1	√	1	√	1	√	1	√	1
School halls	√	1	√	1	√	1	√	1	√	1	√	2
Sport field(s)	√	1	X	N/A	√	1	√	1	√	2	√	1
Equipment – Photocopiers	√	5	√	3	√	2	√	1	√	3	√	4
Equipment – printers	√	10	√	4	√	7	√	1	√	17	√	10
Equipment – telephones	√	2	√	1	√	1	√	1	√	23	√	2
Storerooms in kitchen	√	2	√	1	√	1	√	1	√	2	√	3



Resources	Mega School		Mango School		Mass School		Miko School		Masiko School		Malta School	
		(f)		(f)		(f)		(f)		(f)		(f)
Store rooms in workshops	√	8	√	3	√	2	X	N/A	√	2	√	2
Store rooms in laboratories	√	2	√	2	√	2	X	N/A	-	-	√	1
Book store room	√	1	√	1	√	1	√	1	√	1	√	2
Principal office	√	1	X	N/A	√	1	√	1	√	1	√	1
Deputy principal office	√	2	X	N/A	√	1	√	1	√	2	√	2
Subjects offered	X	N/A	√	16	√	32	√	18	√	-	√	21
Staffrooms	-	-	√	2	√	1	√	2	√	11	√	4
Toilet – pit	X	N/A	X	N/A	X	N/A	X	N/A	√	1	X	N/A
Toilet – water	√	30	√	8	√	10	√	22	√	3	√	23
Tables	√	120	√	39	√	52	-	-	-	-	√	22
Desks	√	2300	√	710	√	630	√	400	√	1600	√	980
Chairs	√	2500	√	710	√	1300	√	400	√	1670	√	1200
Teachers' chairs	-	-	√	39	-	-	-	-	-	-	-	-

According to Table 5.4, all the schools had one library each except for Mega school that did not indicate whether they had a library or not. The five schools that offered Agriculture as a subject had the agriculture laboratories and school gardens. All schools indicated that they had science, home economics and computer laboratories, classrooms, school halls, storerooms in kitchens, water toilets, learners' desks and chairs, printers, telephone and photocopying resources for operation.

However, Masiko and Malta schools did not have storerooms in workshops. Mega and Malta schools did not seem to have adequate storerooms in laboratories compared with their enrolments. All the schools seemed in need of additional classrooms for teaching and learning except Malta school with four. All other five schools except Mango did not respond to the availability of teachers' chairs and tables. Malta school did not respond to the availability of computers. This may be because the schools were lacking in these facilities. Mango school indicated that they did not have the HT's and deputy HT's offices. Mega school did not respond whether they had staffrooms or not. Mass school indicated that they had only one staffroom and this marked a deficiency as compared to the staff complement. Although, observation was not part of my data generation instruments, but personally I saw that teachers were crowded in the staffroom of the school. Overall, the data suggests that although the schools were on average, reasonably endowed with resources, these were seemingly inadequate judging from enrolments and staff complements.

#### ***5.4.2 HTs Perceptions on Adequacy of Resources***

**Table 5.5: HTs' views on the Supply of Teaching and Learning Resources**

<b>Resources</b>	<b>N</b>	<b>Inadequate</b>	<b>Adequate</b>	<b>Very Adequate</b>
		<b>(f)</b>	<b>(f)</b>	<b>(f)</b>
<b>Library(s)</b>	6	-	2	4
<b>Science laboratory(s)</b>	6	-	4	2
<b>Home Economics laboratory(s)</b>	5	2	3	-
<b>Agriculture laboratory(s)</b>	4	1	-	3
<b>Computer laboratory(s)</b>	5	1	-	4
<b>Computers</b>	5	-	2	3
<b>Classrooms</b>	5	1	2	2
<b>Technical workshops</b>	4	-	3	1

<b>School halls</b>	5	-	3	2
<b>Sport field</b>	4	1	-	3
<b>Photocopiers</b>	5	-	2	3
<b>Storeroom</b>	5	1	1	3
<b>Strong room</b>	5	-	2	3
<b>Staffroom</b>	5	1	1	3
<b>Book room</b>	4	1	-	3
<b>Principal office</b>	5	-	3	2
<b>Deputy principal office</b>	5	-	3	2
<b>Kitchen</b>	5	-	2	3
<b>Toilets</b>	5	1	3	1
<b>Telecommunication facilities</b>	5	1	3	1
<b>Furniture</b>	4	-	4	-

All six participating HTs reported that libraries and science laboratories were adequately supplied in the schools. Five HTs except Mango's showed that computers, school halls, principals' and deputy principals' offices, furniture and photocopiers were also adequately supplied in their schools.

According to two participant HTs (Mango and Malta) home economics laboratories were inadequate in their schools. Miko and Masiko schools did not have communication facilities such as telephones. Mango HT indicated an inadequate supply of agriculture laboratory, sports field, store room, staff room and book room. Malta school HT indicated the lack of classrooms and toilets in their school. Mass school indicated that they lacked sports field and Miko HT indicated a lack of workshops in the school. Only Mega school was consistently high in resource provision.

When interviewing HTs regarding availability and adequacy of resources, this is what came out: one HT highlighted that in general, the basic resources needed for a school to run the day-to-day activities were available.

*We are happy about the resources we have in my school. (Mega HT).* This was in line with the HT's responses in table 5.5.

On the other hand, some of the HTs raised different perspectives regarding the resources supply or adequacy. Some HTs felt that most of the school facilities were old and required major repairs.

*This is in relation to the fact that the available resources are too old and need repairs, replacement and maintenance. For example old computers, refrigerators and old furniture lying in storerooms. (Malta HT).*

Another HT echoed this point and said:

*Government takes a long time before attending to the resources, some are even outdated. (Masiko HT).*

Regarding the adequacy of resources in the schools, some HTs felt that the resources were not enough for their operation.

*For purposes of basic resources, that is okay, but not really in the standard we are expecting resources to be. We need more of the workshops for learners to work in. (Miko HT).*

One participant HT also indicated:

*Some resources are still lacking in my school for example, the measure for intensity of the sun, how hot the sun is, how quickly water evaporates, are resources needed for improvement purposes. (Mega HT).*

Another participant added to this view:

*A lot more of the resources are not available in my school, for example, as technology advances, there is need to get more of the e-learning resources to deliver up to the expected standards. There is room to improve the standard of resources provided because resources are used to provide adequate, up-to-date educational and social services noted another participant. (Mass HT).*

One dynamic regarding the availability and adequacy was that resources were not enough in the schools. Another dynamic was that some resources such as photocopiers, printers and computers were outdated. Another was that some resources such as furniture and structures needed major repairs.

As I discussed in the background to the study (Section 1.2) resource provision in schools is one of the key aims of the government (EDSEC policy, 2011). As reflected in the findings, the government provides structures and supplies basic resources. According to Millennium Development Goals (MDGs) (2010) EMIS Swaziland supports in the planning, budgeting, implementation, monitoring, evaluation and reporting on the education system. If the government was committed to all this, then the question would be why action was seemingly not taken to replenish or repair resources accordingly in the schools I studied. A possible dynamic here relates to lack of fluent communication between the Ministry and schools.

### 5.4.3 HTs' Perspectives on Maintenance of Resources

**Table 5.6: Adequacy of Maintaining Resources as rated by HTs**

Statements	Very Inadequate (f)	Inadequate (f)	Adequate (f)	Very Adequate (f)
<b>Classroom</b>	-	-	4	1
<b>Latrines or toilet</b>	-	-	3	2
<b>Libraries</b>	-	-	4	1
<b>Laboratories</b>	-	2	1	2
<b>Material or textbook</b>	-	-	3	2
<b>Offices</b>	-	-	4	1
<b>Workshop</b>	-	-	4	1
<b>Equipment</b>	-	-	3	2

All HTs reported that resources in schools needed either very adequate or adequate maintenance.

In interviews with the same participants, when I asked how they maintained the available resources in their schools; this is what they had to say:

*We use the rental system where text books are kept in the school book storeroom. Text books are numbered and coded, given to learners at the beginning of the year and submitted back at the end of the year to prolong them. (Mango HT).*

Mega school HT reported that they used record books for the documentation of their resource as a support for learning and maintenance.

*After the material resources are delivered to the school, and the HT has signed for them, it is the HOD and teachers who take care of the resources in laboratories and classrooms. (Mega HT).*

Another HT shared the same idea:

*The school supplies text books to the learners at a fee. The teaching and learning materials are under the jurisdiction of HODs who observe and report breakages (maintenance). They keep stock books for this. We keep records of resources in stock books. Resources are stored in cupboards and storerooms safely in the departments. (Malta HT).*

One major issue that came out regarding resource maintenance from the HTs was that schools used stock books to keep records of school inventory. The functionality of the stock books is examined in the subsequent section on document analysis. Schools also used cupboards and storerooms to keep material resources in good state. On another note, it appeared that HTs had left everything to HODs regarding material resources maintenance. But, to some extent this gave the HODs power to do things their way and to have more sense of administrative duties.

I then moved on to the HODs regarding how they managed the resources in their departments.

#### **5.4.4 HODs Perspectives on Maintenance of Resources**

**Table 5.7: HODs' Perspectives on Resource Maintenance**

Statements	N	Not at All		Little Extent		High Extent		Very High Extent	
		f	%	f	%	f	%	f	%
<b>Regular monitoring of teaching and learning materials</b>	32	-	-	1	3	23	72	8	25
<b>Refurbishing premises and buildings every five</b>	29	3	10	12	41	12	41	2	7

<b>years</b>									
<b>Regular monitoring of all assets and facilities for the department</b>	30	-	-	6	20	20	67	4	13
<b>Careful management of textbooks</b>	31	-	-	2	7	18	58	11	36
<b>School laboratories are well equipped</b>	31	1	3	9	29	12	39	9	29
<b>Department workshop are well equipped</b>	27	-	-	8	30	12	44	7	26
<b>All required text book for teaching and learning are available</b>	32	-	-	10	31	16	50	6	19
<b>Improvising for educational resources with available from the local environment</b>	32	-	-	8	25	20	63	4	13

A total of 31 (97%) participating HODs indicated that they performed regular monitoring of teaching and learning resources in the departments to a very high or high extent. A total of 29 (94%) of the participants reported that they take care of text books through careful supervision. Another 24 (80%) reported that they make regular monitoring of all assets and facilities for the departments. Only 15 (51%) HODs monitored the refurbishing of premises and buildings in the schools may be because they felt it was the responsibility of the HT to do that.

One area of general agreement among HODs regarding resource maintenance was that they kept stock book records. In this regard, one HOD had the following to say:

*We keep records of all resources/facilities in our department through the stock book. (Malta HOD 3).*

Another HOD said:

*We use a stock book and cupboards to keep our resources. (Mass HOD 1).*

Another HOD also highlighted the following:

*Text books are maintained by use of stock books where we record the number of books issued to each teacher and number of teachers. Check at the end of the year if they are all in good condition then submit to the principal. We also keep records of the resources, perishables like tonners, papers and non perishables like computers. We keep records of our materials in store rooms. (Miko HOD 3).*

Other HODs reported that they taught learners how to use and take care for the resources in the department. One participant HOD had the following to say:

*In my department we teach learners how to take care and use of resources like refrigerators which is part of the syllabus. (Mega, HOD 8).*

Adding to the same point, another HOD indicated:

*We see to it that learners take good care of the school furniture, because if they do not do so, there is little hope of getting new furniture soon. (Masiko HOD 6).*

Mango school HODs explained that they maintained resources as follows:

*When facilities need repairs and maintenance, they are reported to the administration. The administration then hires a company from outside that deals with maintenance to repair facilities. (Mango HOD 1).*

Another perspective from HODs FGIs was how faulty and outdated some assets were. This is what one HOD said:

*Faulty assets are kept in the government stores department at Matsapha. We give a full account about the asset, especially those that are not repairable in the school for government to have records. (Miko HOD 4).*



Interview data suggests that HODs practiced some amounts of resource management including monitoring their use and keeping records. But the ‘story’ was incomplete before I studied some of the relevant documents.

I discovered that five out of the six schools kept records of the stock books for resource maintenance. Only one school did not have records of inventory because they were reported that these were misplaced. The HT of Masiko school explained that official books including the stock books were mislaid because of renovations that were in progress in the school at the time of this study. I found this to be quite bizarre.

He explained:

*Most resources of the school are too old and I’m starting a lot of things afresh. The stock books were lost among other things while putting a lot of facilities in order. We will start keeping proper records afresh as soon as all things are in place and renovations are over. (Masiko HT).*

The inventory books I analysed from the other five schools were under the custody of HODs as previously indicated in this chapter, (Section 5.4.3 and 5.4.4). In all the five schools, these books showed the following information for the year 2015. The name of the subject, name of items purchased, date of purchase, price of items bought quantity, total number, name of supplier and signature of the buyer. However, there were some differences among the stock books in the schools. Some HODs did not submit the stock book records to the HT for checking and signing at the end of each school term, therefore the school stamp did not appear in some of the inventory books. Some stock books did not provide for missing resources, broken materials, warranty, insurance cover of resources, sustainability plan of resource maintenance and the date of physical stock taking.

In analysing the documents, it seemed to me that maintenance mainly focused on material resources with little evidence about physical ones. According to Mestry and Bodalina (2015) effective maintenance protects capital investment, ensures the health and safety of learners and supports educational performance. On the other hand, the negligence of physical resource maintenance planning may cause capital investment to be squandered when the assets and equipment deteriorate or warranties become useless. Therefore, failing to maintain both physical and material resources is likely to discourage future investment in the education system (Onuoha-Chidiebere, 2011). This suggests that more standardised sets of practices,

highly fluid structures, interactional and deeply dependent maintenance guidelines that may bring success to schools were needed. Thus, a comprehensive maintenance plan may serve as a blueprint for here and now use and as a road map to the future, involving all concerned stakeholders in resource upkeep, safety and efficiency.

As I reported earlier, one dynamic that emerged regarding the availability, adequacy and management of resources was the slow turnaround for government to replace resources. Schools seemed to neglect the refurbishing of school premises and buildings, the disposal of obsolete resources and the repairing of worn out ones in the schools. As I reported in the systems theory (Vide Chapter 3, Section 3.4) the components of the education system need coordinated management in order to yield best results. Castillo (2014) adds that the systems approach involves interactions between inputs in the education system which result into better learning outcomes. The quality of resources (inputs) available for a school determines the type of result (outputs). Therefore, there is need for schools to maintain effective interpersonal relationships with the community and its external agencies in order to improve on teaching and learning processes and yield best results. As I argued in theme one of this chapter, there seemed to be a problem with the system of education in availing resources and inability to maintain resources in schools. The culture makes schools relax and leave everything to the government.

### **5.5 Theme Three: Factors Influencing Resource Generation and Management**

In this theme I present and discuss participants' views regarding factors that influence the generation and management of educational resources in the schools. This theme is divided into two sub-sections: enablers and challenges affecting the generation and management of resources.

#### **5.5.1 HTs Perspectives on Enablers to Resource Management**

**Table 5.8: Enabling Factors in Resource Generation and Management as rated by HTs**

<b>Statements</b>	<b>N</b>	<b>Strongly Disagree (f)</b>	<b>Disagree (f)</b>	<b>Agree (f)</b>	<b>Strongly Agree (f)</b>
<b>Create an environment appropriate for teaching and learning</b>	5	-	-	2	3

<b>processes</b>					
<b>Enhance education quality for optimal productivity of schools</b>	5	-	-	2	3
<b>Participation of parents and school committees in decisions regarding resources</b>	4	-	-	-	4
<b>Allow effective and efficient teaching and learning processes</b>	4	-	-	-	4
<b>Establish policy based on fair resource funding</b>	4	-	-	2	2
<b>Allow efficient teaching and learning processes in schools</b>	4	-	-	-	4
<b>Monitoring of school activities for providing support for improvement</b>	4	-	-	1	3
<b>Ensuring good planning for educational resources by MoET</b>	4	-	-	1	3
<b>Allow local body to set additional aims and objectives for the school</b>	4	-	-	1	3

All the five HTs who responded either strongly agreed or agreed that, creating an environment appropriate for teaching and learning processes and enhancing education quality for optimal productivity were key enabling factors. Others said the participation of parents

and school committees in decisions regarding resources, monitoring school activities to provide support for improvement; ensuring good planning for educational resources; and establishing policy based on fair resources funding in schools were other enabling factors influencing resource generation and management.

In interviews with HTs regarding enablers of mobilising and managing educational resources, responses varied as follows:

One HT reported that there was benefit in the improvement in school performance when the teaching and learning environment is conducive.

*The environment improves in terms of getting best teachers and having an extended resource base for school functioning. Performance improves because the school can have the resources and is able to liaise with the world outside. (Masiko HT).*

Malta HT explained that there must be a common office to form a pool of resources to the benefit schools in a cluster as an enabling factor.

*According to clusters schools can be able to purchase resources and put them into one central office, especially the expensive ones; this can benefit schools a lot. When a school cannot afford buying certain resources, they can use those materials from the central office jointly using chances. This can bare positive results in schools performance as well. (Malta HT) expressed her idea.*

One enabling factor was the involvement of parents and school committees in decision making regarding school facilities. Another factor was that of pooling resources together in a central cluster office.

### 5.5.2 HODs Perspectives on Enablers for Resource Management

Table 5.10: Enabling Factors in Resource Generation and Management as rated by HODs (N=32)

Statements	Strongly Disagree		Disagree		Agree		Strongly Agree	
	f	%	f	%	f	%	f	%
Create an environment appropriate for learners and	-	-	1	3	12	38	19	59

<b>learning process</b>								
<b>Enhance quality education and optimal productivity in school</b>	-	-	1	3	11	34	20	63
<b>Participation of parents and school committee in the decision system regarding resources is appropriate</b>	-	-	2	6	13	41	17	53
<b>Allow effective and efficient teaching and learning in school</b>	-	-	1	3	11	34	20	63
<b>Policy and strategies should be directed on equitable resource maintenance</b>	-	-	1	3	15	47	16	50
<b>Transparency of information and accountability by schools should be concrete or substantial</b>	-	-	-	-	14	44	18	56
<b>Monitoring of school activities should be used for providing support for improvement of facilities</b>	-	-	1	3	14	44	17	53
<b>Ensuring effectiveness and efficiency of school operation by Ministry of education and Training</b>	-	-	-	-	12	38	20	63

All 32 (100%) participating HODs either strongly agreed or agreed that transparency of information and accountability and ensuring effectiveness and efficiency in school operation were key factors that enabled resource generation and management in schools. A total of 31 (97%) participants indicated: create an environment appropriate for teaching and learning processes, directing policy and strategy on equitable resource maintenance and enhancing education quality for optimal productivity were essential factors. Another 30 (94%)

participants reported that participation of parents and school committees in decision systems regarding resources were also inputs in resources generation and management in schools. The HODs' responses suggested the sharing of responsibilities and care between MoET, school site and environment in order to achieve intended education objectives were other enablers.

From FGIs with HODs, one issue of general agreement among schools was that resources need to be available and organised to facilitate the teaching and learning process.

One HOD had the following to say:

*When learners learn by seeing, experimenting and manipulating resources, it makes learning last in the learners' minds leading to an improvement in the department and school performance. (Miko HOD 5).*

Another HOD added:

*Teaching and learning continues smoothly; learners work independently at home with their resources especially text books. It becomes easy to tell which educational resources are available like furniture and which resources are lacking through the proper organisation of resources. This brings about some benefits and enables smooth operation. (Mass HOD 3).*

One HOD stated briefly that with well organised resources:

*... the school is likely to attract more learners. (Masiko HOD 2).*

Availability of facilities and tools make learning easier. One HOD explained:

*In the Agriculture department we work without any problems because the resources are available; we are able to see what is missing and what needs to be added to the resources and we are able to maintain the stock book then give an account of it. (Mega HOD 2).*

Another HOD echoed this:

*We are able to replace perishable items yearly thus we ensure good maintenance and management of resources and we are able to see what is missing. (Malta HOD 4) expanded.*

Another participant HOD added the benefit of managing resources. She said

*An increased number of learners can make it possible for the school to have adequate space, furnishings and more resources. (Mango HOD 1).*

The key enabling factor from HODs' perspectives was rooted on proper execution of the management functions in schools, POLCCC. Further, the responses regarded accountability and transparency as important enabling factors.

On the whole, the responses from majority of participants suggested that stakeholder involvement and sub-systems interaction were important enabling factors influencing resource generation and management in schools. As discussed in Chapter 3, (Section 3.4.1) the systems theory of management by Love and Skitmore (1996) encourages a link between I-P-O-F in organisations. This brings about smooth operation, coordination and collaboration among systems and sub-systems, (Bush, 2003; Seiler et al., 2007; Castillo, 2014) in the MoET in this case. Preston et al., (2013) add that, because leadership in schools is multifaceted, place-conscious and relationship dependent, it cannot be detached from the historical and social practices of the immediate community. Therefore, school administrators must be able to nimbly mediate relations within the local and international community, educational stakeholders and the larger school system for support.

### **5.5.3 HTs Perspectives on Factors Hindering Resource Generation and Management**

**Table 5.9: Challenges in Resource Generation and Management as Perceived by HTs**

<b>Statements</b>	<b>Strongly Disagree (f)</b>	<b>Disagree (f)</b>	<b>Agree (f)</b>	<b>Strongly Agree (f)</b>
<b>Frequent changes in educational policies</b>	1	-	2	2
<b>Personnel constraints in employee attitudes</b>	1	-	2	2
<b>Poor maintenance for resources in schools</b>	-	1	3	1
<b>Poor funding of schools</b>	-	-	3	2

<b>Lack of support services in school based management</b>	-	-	2	3
<b>Lack of policy guidelines on how to engage in income generating activities</b>	1	2	2	-
<b>Lack of sufficient in puts</b>	-	2	1	2
<b>Lack of appropriate methods and techniques that work well in the local context</b>	-	1	3	1

All the five HTs who responded reported that poor funding of schools and lack of support services in SBM were major hindering factors. Four HTs reported that frequent changes in educational policies, poor maintenance cultures, personnel constraints in terms of attitude and lack of appropriate methods and techniques were other challenges in resource generation and management in the schools. However, three HTs did not believe that lack of policy guidelines or sufficient inputs were challenges. One disagreed that frequent changes in educational policies, personnel constraints, lack of methods and techniques and lack of policy guidelines were challenges hindering generating and managing resources.

From interviews with HTs one general challenge was lack of policy regarding resources. One HT stood out to say:

*There is no policy regarding the issues of resource generation and management in schools. We are just told that government schools are not allowed to do certain things but there is no written documentation governing this. (Masiko HT).*

Other HTs raised the issue of the high numbers of Orphaned and Vulnerable Children (OVCs) in schools as a major challenge.

*Financial resources are lacking a lot because OVCs need their school fees to be paid for by the government. These payments are delayed and the whole teaching and learning processes are affected because nothing can happen in the school without funds. (Miko HT).*



Seemingly there was no adequate support from government to help parents in providing for educational resources.

*There are no additional subsidies and donations for the practical subjects; this proves that schools lack financial resources. (Mass HT).*

Another participant reported that funds to acquire fixed assets were inadequate.

*Resources have a life span and finally should be replaced, but since education is already expensive it becomes very difficult to meet all the school needs on resources. Education and all other things are advancing and getting expensive by the day, yet if resources management is not improved in any way and it is very difficult to use the same resources in the future like textbooks that easily deteriorate, so the near future in learning looks threatened. (Miko HT).*

Mega HT also argued that inability to present convincing justifications for increasing school funds to authorities was a challenge.

*Resources used tend to be expensive for us as a school to buy. It also becomes very difficult to convince those in authority to increase school fees payments to meet the costs of the resources. Therefore, unavailability of the resources leads to failure of the administration to purchase tools due to insufficient funds. (Mega HT).*

Resource theft, like textbooks that got stolen in the schools was another issue raised by HTs.

*Learners decide to keep their textbooks at home to preserve them from being stolen and this disturbs the teaching and learning process. (Mango HT).*

Negligence in resource management by those assigned to manage them was another issue.

*There is shortage of storage facilities in my school. This causes more resource shortages because some of the storage facilities are filled with old materials that are no longer in use and would never be used any more. We can't throw them away because they are for government. (Malta HT).*

The issue of lack of skills and training towards effective generation and management of resources came out. HTs felt that there was need for workshops for school administrators on curriculum changes including technology and equipment management.

Mass HT stated:

*Workshops should include empowering us and other stakeholders involved in resource mobilisation and management on skills for acquiring the resources. (Mass HT).*

Another HT echoed:

*Workshop HODs as managers as well on how to take good care of the resources, servicing, maintaining and repairing them, so that they can teach teachers and learners and then be able to achieve school goals. (Mega HT).*

HTs raised various challenges regarding the generation and management of educational resources including the absence of policy frameworks, poor resource maintenance, lack of relevant skills and poor communication.

Overall, I argue that improved functioning of the entire education system may address some of these challenges.

#### **5.5.4 HODs Perspectives on Factors Inhibiting Resource Generation and Management**

**Table 5.10: Challenges in Resource Generation and Management and Rated by HODs**

Statements	N	Strongly Disagree		Disagree		Agree		Strongly Agree	
		f	%	f	%	f	%	f	%
<b>Frequent changes in educational policies</b>	32	-	-	7	22	15	47	10	31
<b>Personnel constraints</b>	32	-	-	4	13	22	69	6	19
<b>Poor maintenance culture and practice for resource management</b>	32	-	-	7	22	17	23	8	25
<b>Poor funding of schools</b>	32	-	-	7	22	13	41	12	38
<b>Lack of training and</b>	31	-	-	4	13	18	58	9	29

<b>support services on school based management</b>									
<b>Lack of guidelines or policy on how school s can engage in resource generating activities</b>	32	-	-	5	16	18	56	9	28
<b>Lack of sufficient inputs like instructional materials, physical structures etc.</b>	32	1	3	7	22	14	44	10	31
<b>Lack of methods and techniques that work well in the local context of the school</b>	32	-	-	6	19	17	53	9	28

A total of 28 (88%) HODs said personnel constraints were a key inhibiting factor in resource generation and management. Another 27 (87%) revealed that lack of training and support services in SBM and lack of policy guidelines on resources were also challenges hindering resource generation and management. Also, 26 (81%) reported that lack of methods and techniques about generating and managing resources in relation to local context of the school were challenges. On another note, only 8 (25%) HODs reported that lack of sufficient inputs, a poor maintenance culture and poor funding of schools were not pressing challenges in resource generation and management.

Following up on the top factors stated in the questionnaire, one agreed upon inhibiting factor was the presence of obsolete resources. In this regard, one HOD explained that outdated resources made it difficult for the school to operate well.

*Some of the resources do not provide up to date information. The deterioration in the condition of facilities like furniture, equipment and text books do not provide up to date educational and social services thus leading to interruptions of the teaching and learning process. (Miko HOD 3).*

Another HOD from the same school added:

*When demonstrating some of the things you are teaching about, you do not have the equipment required e.g. DVDs or projectors to show earthquake or volcano for learners to see. This becomes a challenge in teaching and learning. (Miko HOD 6).*

One participant HOD revealed their inability to present convincing justification for increasing subject fees to authorities was a challenge.

He explained:

*Resources used in schools tend to be expensive for the schools to buy. Some devices become outdated yet they are expensive to buy and replace like white marker boards. This leads to learners lagging behind in their learning if there are no up-to-date resources. The outdated resources do not meet the current standard of teaching and learning. (Mega HOD 8).*

Another HOD added:

*Some of the big items are expensive, they require a lot of money to buy, and replacing them takes a very long time thus causing challenges of working without such resources in the teaching and learning process. (Malta HOD 4).*

Some participating HODs reported a delay in the delivery of educational materials as a challenge.

*Text books ordered from countries abroad especially for French and Business subjects do not arrive on time to the schools. This cause challenges in teaching and learning. (Mega HOD 6).*

Another HOD said:

*Costs of the teaching materials are high and they end up few in number when purchasing them yet at the same time some still get stolen without even noticing until at the end of the year. (Masiko HOD 2).*

Another HOD also reported the challenge of theft of resources.

*The stealing of resources like small items happens a lot in our school. (Mass HOD 2).*

Another challenge revealed was the lack of storage facilities of resources in schools. In this way, Malta HOD reported:

*There are no enough storerooms to keep material resources such as the text books in use thus vulnerable to theft. (Malta HOD 4).*

Another inhibiting factor was that of delays in replacing the broken or outdated resources.

*Learners like touching the resources and there is a challenge that some may run carrying the equipment which they can fall and break them. There may be a big challenge in replacing the facilities when they are broken. (Miko HOD 5).*

Another HOD participant reported:

*It depends on the school budget if there is an allocation for the big items, if not; it takes a very long time to replace resources. (Malta HOD 4).*

Some participating HODs reported of the lack of resource management skills.

*Lack of information or training hinders the proper management of educational materials. Another thing is that there is not enough finance in obtaining the training required in maintaining resources in schools. (Masiko HOD 4).*

Some of the hindering factors identified by HODs were in agreement with those raised by HTs, for example, lack of policy guidelines, resource theft, lack management skills and lack of support in SBM. These responses suggested that school managers lacked innovative skills and lacked policies that facilitate effective and efficient generation and management of physical and material resources. Therefore, a kind of routine supervision of resources appeared to be a necessary factor to keep school facilities performing up to the expected standards, to reduce wastage, theft and to curb some of the hindering factors in resources.

Overall, five enabling factors emerged regarding the generation and management of resources. One was involving the participation of parents and school committees in the school decision system regarding resources. Another was having an extended resource base for operation. The third was getting best teachers through an improvement in school

performance. The next was ensuring good planning for educational resources. Finally, to liaise with the outside world for operation based on fair resource funding in schools.

On the other hand, there were myriad inhibiting factors reported. One was lack of skills in resource management. Another was inadequate financing to obtain and maintain resources. Another was poor maintenance culture of resources. Another was theft of resources among others. These suggested that there were weaknesses in the way resources were generated and managed in the schools and therefore, precaution and commitment was necessary to the effective generation and management of resources in schools.

Findings on the factors affecting resource generation and management suggested a lack of connectivity between schools and the outside world. Schools appeared to be inward looking. There seemed to be lack of efficiency and effectiveness, hindering participatory management, delegation, collaboration, coordination and feedback for schools to attain objectives. Connectivity can link the organisation with the outer world but this should start from within. According to Shrifian (2011) collegiality is a supportive style, in which managers should develop close relationships and a more effective working environment where employees see themselves as a close-knit team (Vide Chapter 3, Section 3.3.1). Aishatu (2010) and Olatoun (2012) add that managers should be facilitating teamwork within and outside the organisation. Also managers should allow people with different strengths to contribute and play their roles towards achieving organisational goals. Therefore, a useful way of using collegiality is working as teams to open up the system of education for more support.

Other scholars in the field of management Daily & Huang (2001); Hadush (2011); Matei and Dogaru (2012) argue that the fundamental problem in educational materials and facilities management is lack of clear policy guidelines. Ehiamentor (2003) and WB Group (2013) argue that in order to strengthen all levels of education, teachers must be properly trained and retrained on a continuous basis to meet the level of expectation required in the national policy on education for technological development to overcome some of the challenges. Consequently, the more mediocre persons are available in schools, the more problems for the education system and the economy at large will be experienced. So, the school system also seemed to lack accountability and policy implementation abilities. This calls for more competency development among education leaders and creating more partnership relationships for schools.

## 5.6 Theme Four: Sustainable Practices in Resource Generation and Management

In this theme I attempt a synthesis of best practices to sustain educational resources. This theme is divided into two: sustainable practices for generating resources and sustainable practices for managing resources.

### 5.6.1 HTs Sustainable Practices in Generating Resources

**Table 5.11: HTs Views on Sustainable Practises in Generating Resources**

Statements	Not at All (f)	To a little Extent (f)	Moderate Successful (f)	Very Successful (f)
Having constant flow of funding in school	-	-	-	4
Calling for quotation to compare rates and quantities of resources	-	-	-	4
Having constant flow of funding from outside	-	-	-	4
Forming PPPs for resource mobilisation	-	-	1	3
Inviting donors to support schools' functioning	-	-	1	3
Conducting evaluations for funding and setting new targets	-	-	1	3

All four participating HTs who responded reported that having a constant flow of funding from within and from outside the school would sustain operations. Another issue was making quotations among suppliers to compare resource quality. Three HTs raised the issues of the need to form PPPs for resource mobilisation, inviting donors to support school functioning and conducting evaluations for funding fundamental practices for resource generation sustainability. This means that practising certain specific strategies and conditions in resource generation were essential in order to achieve success in the daily school operation. From

these responses, I moved on to ask HTs to suggest sustainable practices for managing resources.

### 5.6.2 HTs Sustainable Practices in Managing Resources

**Table 5.12: HTs Views on Sustainable Practices in Managing Resource**

Statements	Not at all (f)	To a little Extent (f)	Moderate Successful (f)	Very Successful (f)
Careful selection of material and facilities	-	-	2	3
Formulation of plans to achieve objectives	-	-	-	5
Categorizing resources or facilities	-	-	2	3
Delegate resource jobs to committee	-	-	1	4
Have proper facility inventories for resources	-	-	1	4
Avoid resource wastage through maintenance	-	-	1	4
Arrange proper space and storage of resources	-	-	1	4
Keeping periodic verification of stock	-	-	1	4
Employing new techniques in resource management	-	-	1	4

All the five participant HTs who responded reported the need for careful selection of materials and facilities and forming plans to achieve objectives. Also categorising resources, delegating resource jobs to committees and employing new techniques, among others were suggested as sustainable practices of managing resources in schools. I discovered that the responses appealed to the need to empower school managers with new methods and techniques of dealing with resources in schools.



Further, going to interviews with the same participants, I asked them to suggest best practices for sustaining educational resources in the schools. Responses were centred on the following views:

One practice raised by HTs was the issue of using information communication technology (ICT) equipment in schools for different activities.

*The use of ICT can help reduce the wastage of resources because those in charge of the resources would have to account for missing tools. (Miko HT).*

Another HT said:

*Buying technological materials as a cluster can help curb wastages when it comes to resource planning. When some of the resources are outdated or redundant they can be replaced easily than a huge loss falling on one school. (Mass HT).*

Masiko HT raised a point on delegation of responsibilities to individuals:

*It would be good to appoint resources to wardens like clerical officers and set committees that would ensure their sustainability and care. (Masiko HT).*

Malta HT elaborated on the same idea:

*The resource wardens or committees would have their own principles of operation and this can increase the life span of educational facilities in schools. (Malta HT).*

Another HT participant suggested the need to assign duties to others as a management function.

*Delegation of duties is part of the management functions of school administration. So resources should be appointed to resource wardens or clerical officers who should inform about resource needs for maintenance. (Miko HT).*

Participants also suggested the importance of teaching stakeholders about resources.

*It is important to remind learners and staff about the need to save resources for example, to attach notices to switches and exit points to remind users to turn off lights and other appliances. (Mass HT).*

Several of the HTs suggested the need for having a constant flow of funding in schools to support learners from poor backgrounds and that the finance could help in school operation.

One HT remarked:

*School resource management is a sensitive issue, some school principals have lost jobs on the issue of finances, so it is important to educate those involved with school resources on skills for the proper management of such. (Masiko HT).*

Miko HT also commented:

*The income received for running the school is far less than the expenditure required. As a result, the school's activities do not run smoothly because no financial plans are properly in place. This results in my school not fulfilling its role of providing quality and equal education to learners from poverty stricken homes. (Miko HT).*

Another HT mentioned the need for connecting with outside stakeholders for resource support in schools:

*Create a data base for funders, having a stable source of funding for efficient teaching and learning, support of educational resources and investing on legal fundraising strategies for the generation of educational resources. (Malta HT).*

A number of participating HTs suggested that schools needed to practise developing rapport, alliances and partnerships with suppliers, communities, non-governmental organisations (NGOs), and companies to support education with finances for resources.

One HT specifically said:

*A school can easily get funders and suppliers to buy or construct facilities for the schools together, for example, weather stations, build new structures. (Mass HT).*

Some of the participating HTs also supported this view. To illustrate:

*Some companies can pledge to replace outdated resources in the schools. They can mind the compatibility of the equipment and can give new and current information for teaching and learning, like ICT equipment. (Mango HT).*

Another participating HT added:

*Bringing all stakeholders on board with information flow on how to take care of the resources (learners, parents, and teachers) and what is expected of each stakeholder can help schools sustain their resources. (Masiko HT).*

Another participant HT suggested giving incentives.

*Give incentive to HTs, HODs, teachers and learners (stakeholders) for taking good care the resources and spending lucratively on resources in that department. This could increase the life span and security of resources. (Miko HT).*

The issue of policy governing educational resource management in schools was also proposed by some HTs.

*There is need to have a policy that can govern everything in the school, that is, furniture, equipment, text book rentals etc. Implementing what is in the policies can help in order to sustain resources in schools. This is to avoid solving problems impromptu. (Mango HT) commented.*

One HT emphasised this issue:

*There is a great need to have a text book policy to regulate the use of books in schools because there is none at the moment. The absence of such a policy leads to irregularities in the school planning, control and operation. Policy must be put into practice than to leave it on paper only. (Mega HT).*

Another HT suggested specific policies for schools:

*Schools should have a resource mobilisation policy, text book policy, maintenance and management policy. Have a resource management committee to help stakeholders mind the security of resources in the schools. (Miko HT).*

One dynamic that emerged regarding sustainable practices in resource generation and management as perceived by HTs the need to encourage the use of ICT for inventory control. Another was related to having policies to govern school operations on resources. Another dynamic was the need to form PPPs to sustain educational resources. Yet another one was about having a continuous flow of funding in schools. Another was delegation of resource

responsibilities to wardens. The view on policies was an eye opener to me that there were challenges on operation and functionality of schools regarding educational resources.

### 5.6.3 HODs Perceptions in Resource Sustainable Practices

In this section I present HODs' perceptions regarding sustainable practices in educational resources generation and management.

**Table 5.13: HODs Views on Sustainable Practices in Resource Generation and Management**

Statements	N	Strongly Disagree		Disagree		Agree		Strongly Agree	
		f	%	f	%	f	%	f	%
Careful selection of material and facilities	32	-	-	-	-	14	44	18	56
Formulation of plans to achieve objectives	31	-	-	1	3	11	36	19	61
Categorizing resources or facilities	32	-	-	1	3	17	53	14	44
Scout for quotation to compare	32	-	-	-	-	12	38	20	63
Have proper facility inventory listing	32	-	-	-	-	14	44	18	56
Avoid resource wastage and damage	32	-	-	-	-	13	41	19	59
Arrange proper space and storage	32	-	-	-	-	10	31	22	69
Keep periodical stock verification	32	-	-	1	3	13	41	18	56
Have constant flow of funding	32	-	-	3	9	14	44	15	47

All 32 (100%) participating HODs suggested the following as possible sustainable practices: careful selection of materials and facilities, having proper facility inventory, avoiding resource wastage and damage, arranging proper space and storage for resources and scouting for quotations to compare costs. Also, 31 (97%) said categorising resources and keeping periodic verification of stocks were also best practice. A total of 30 (97%) participants said that schools had to form plans to achieve objectives. Another 29 (91%) reported that having constant flow of funding in schools was another sustainable practice. These responses portrayed a need for a crucial focus on comprehensive packages of technologies and engaging on internal and external strategies to sustain resources in schools.

I also interviewed HODs in FGIs on this matter. One view they brought forward was the issue of ICT equipment usage. In this regard, one of them responded as follows:

*A school can use a card with barcodes to tell who is holding what resource at what time. The laboratory technician can give printouts for stock book checks for the availability or lack of resources in the whole school. (Mega HOD 8) and ICT specialist he explained.*

In addition to this, another HOD said:

*ICT usage makes it easy for the office in charge of the resources to check inventory, thus ensuring that resources are well looked after. (Masiko HOD 8).*

One Miko HOD echoed the same view that:

*The ICT equipment can be used to check and manage inventory even for servicing and repairing resources and for back up purposes. (Miko HOD 7).*

Another best practice raised was that of establishing relations with other institutions to assist in funding of schools. Several of the participants suggested:

*It is important to develop a rapport and friendship with suppliers, communities, NGO's, companies. Creating a database for funders with similar vision to that of the school can sustain educational resources. (Mega HOD 6).*

A participant HOD from Malta added:

*Suppliers can offer huge discounts when buying from them in bulk, thus making the purchase of resources even cheaper. (Malta HOD7).*

The same idea of funding flows to schools came up also at Miko school:

*Investing on fundraising strategies, like selling from Agriculture and Home Economics products can help support schools with funds for maintenance of educational resources. (Miko HOD 3).*

A participant from Mass said:

*We should be involved in the school budgeting for our departments so that we can know the state of the school coffers to avoid demanding more resources where there is actually no money, that is, mind the rate at which needs and requirements of resources occur. (Mass HOD 3).*

Some participating HODs suggested the involvement of all stakeholders to help sustain educational resources.

*Working hand-in-hand with stakeholders and specifying what is expected of each of them on the care of resources could bring sustenance of educational resources. (Masiko HOD 6).*

This same view came up at Malta.

*Determining the state or condition of the resources, especially text books when taken by the learners as stakeholders can help the school know what to expect at the end of the year when collecting them back. (Malta HOD 4).*

This view was also raised at Mango school:

*Carefully conscientising all relevant stakeholders involved, that is, learners, staff and community on the need to preserve or save resources. This can minimise the chances of misusing resources and the reckless handling of school facilities by people who lack knowledge about the importance of concerning themselves with educational resources. (Mango HOD 3).*

Other HODs raised the issue that HTs should monitor resource usage in schools.

*Administrators should monitor the usage of resources like electricity, water, stationery; remind learners and staff on the need to save resources; conduct routine checks on unnecessary use of educational resources and facilities. This would avoid solving problems untimely, but instead promote the aims of education. (Malta HOD 3).*

HODs quantitative and qualitative responses agreed to a high extent with those of HTs. Having proper facility inventory through the use of ICT and having constant flow of funding in schools were the most common sustainable practices. In addition, they suggested proper budgeting and planning for resources in the departments and involving all stakeholders concerned with processes of resource generation and management in schools. This meant decentralising the resource processes and improvements by promoting stakeholders control over what happens in the schools with regards to physical and material resources.

I went on to analyse the school strategic plans (SSP) to complement data gathered from questionnaire and interviews. I found that only one out of the six schools had a strategic plan in place. When analysing the SSP of Mango high school, the following information was gathered: the vision and mission statement of the school. There was focus on academic and student services. The SSP was supported by adequate and appropriate staffing (ref. Section 5.2, Table 5.1). On the other hand, there was no financial plan for the operation of the school. There were no ongoing operations of the school like maintenance plan regarding resources. There was no capital renewal and replacement plan for the school resources. The plan did not specify strategies for correcting problems in the future regarding resources in the school.

Regrettably, the other five schools reported that there were no strategic planning conducted in their schools.

One HT specifically mentioned that:

*I do not understand what a strategic plan is. This is because there is no document specifically prepared so as to carry on with this task. (Miko HT).*

This sentiment was shared by the other schools although some did not put it as convincingly as in the above HT's response.

According to Daily and Huang (2001) many businesses including schools implement a proactive strategic tool known as an environmental management system (EMS) to gain a competitive advantage. Strategic planning provides a framework so that the most important priority of the school, the students' educational achievement is taken care of (Daily & Huang, 2001). Matei and Dogaru, (2012) suggest that various elements of a strategic plan contribute directly to the understanding and formulation of policy priorities and goals in organisations.

Evans (2007) emphasises that strategic planning helps with fundraising as an additional benefit. Donors are more likely to support a school that has a clear vision and a strategy to make it happen. Gumbi (2009) also advises that budgeting should start with SSPs and that to achieve objectives of the school depends on the availability of resources. Therefore, information regarding SSPs suggests that the schools lacked better operational efficiencies. They also seemed to lack long-term strategic planning skills and sustainable approaches for the management of resources.

Caldwell (2006) is of the view that physical and material resource evaluation and planning should occur on a regular basis to ensure that the resources allocated to any institutional function are adequate for the effective conduct of that function and its current demand. Yun (2010) highlights that at the end of each strategic plan cycle, members of the organisation engage in a review of its collective achievements, challenges faced and current realities vis-a-vis its vision, mission and goals, in order to plan for the next cycle. Unfortunately, as could be observed from document analysis, nothing much was done by the participating schools in this regard. It seemed that HTs had inadequate understanding of strategic planning processes. Seemingly, there were no tight or logical connections between mission, vision, goals, actions and responsibilities in schools. Thus the schools seemed to need to have facilities plans linked to academic, student services and financial planning for the proper operations of resources. These should be broadened to include ongoing operations, preventive maintenance, deferred maintenance, capital renewal and replacement of resources.

This theme was about participants' views on ways of sustaining educational resources. One dynamic that came out was the importance of having a constant flow of funding in schools. Another one was the need to establish internal and external partnerships to support schools. Another one related to involving in decision making all stakeholders concerned with school resources. Responses implied that decentralisation of resources could be best approached by establishing structures and processes that enable groups of people to discuss new directions, lead proactively and try new approaches to education sustainability.

Daily and Huang (2001) argue that education management practices should include documentation of commitment, policy, planning, implementation, measurement and evaluation, and review and improvement. Therefore, implementing sustainable practices for educational resource generation and management in schools require the application of the



systems theory. The interaction of systems and sub-systems of an organisation contribute a lot to the environment in terms of input, feedback, processes and output of a school as a social system (Vide Chapter 3, Section 3.4.1). This means, everyone involved with resources should be knowledgeable about legislation related to resource mobilisation and management. Daily and Huang (2001), Ehiamekalor (2003) and Aishatu (2010) emphasise that the school environment has a formative influence on its activities. Thus, policy implementation helps managers look at all aspects of schools and planning how they wish to move forward. Also, where there was need to show collegiality, it did not seem to show. Hence, motivation and effective communication were essential elements of collegiality in resource sustainability. In this case, it was quite disturbing that SSPs were not operational in the schools yet they are the core of sustainability. Consequently, the lack of strategic planning in schools resulted in an inability to plan high level goals and difficulty in translating the goals into reality.

## **5.7 Conclusion**

This chapter was about data presentation and discussion. It was divided into four themes namely: perspectives on sourcing educational resources; availability, adequacy and maintenance of educational resources; factors influencing educational resource generation and management; and sustainable practices in educational resource generation and management.

In the case of biographical data, I reported that participating HTs and HODs had good and relevant qualifications to handle issues of resource generation and management in the schools. On resource acquisition, I found that the schools under investigation generated their resources mostly through internal sourcing strategies and slightly through external funding sources. I reported on the various resources available, adequate or inadequate in the schools. Both HTs and HODs participants approved the use of stock books, store rooms and cupboards for upkeep and management available educational resources. Concerning resource maintenance I reported that these were mainly focused on material resources and needed reinforcement for the physical ones.

Regarding factors affecting the generation and management of educational resources in schools, the leading enabling factors were: having an extended resource base with basic resources for operation; the need for school improvements in terms of performance and

environment to attract best teachers and being able to liaise with the outside world for better school operation. Regarding the inhibiting factors, the following came out: lack of skills in resource management; lack of finance for obtaining and maintaining resources; lack of policy guidelines in the schools and the loss of resources through theft. The information revealed that there were weaknesses in the way resources were generated and managed in the schools because of the myriad factors.

On sustainable practices in educational resource generation and management, participants reported the importance of having a constant flow of funding in schools. Another one was to do with establishing internal and external partnerships to support schools in resource operation. Also, having proper facility inventory through the use of ICT was reported to be important. Others were delegating responsibilities of resources to committees and engaging all stakeholders concerned with processes of resource generation and management. Findings disclosed that schools needed to promote shared visions and missions, as well as extending their internal and external links.

Overall, from findings I noted that the extent of decision making regarding resource generation and management by schools seemed very limited. School managers seemed low in creativity, policy innovation and were also less proactive. Therefore, this suggested the need for better management capacity in the schools in question.

## **CHAPTER SIX: PROBLEMATISING THE NOTION OF “SUSTAINABLE GENERATION AND MANAGEMENT OF EDUCATIONAL RESOURCES”**

### **6.1 Introduction**

In this chapter I reflect on the findings of the study regarding the dynamics of generating and managing educational resources in selected secondary schools. To understand this key issue, I first provide a synopsis of the study to show the essence of each of the five chapters of this report. I move on to explain the key findings of the study. I dwell on the findings as they relate to the critical research questions as posed with the view to arriving at how sustainable generation and management of educational resources may be achieved. Next I suggest thoughts for further investigation. Finally, I explain the limitations of the study.

### **6.2 Looking Back**

In this section I focus on how the journey started and explain how I moved on throughout all the chapters. The report is made up of six chapters.

In Chapter One I introduced the study. I signposted what policies in Swaziland say regarding resources in secondary schools. I reported on government having interest in procuring sufficient resources that meet the needs of all learners. I identified the need in the country to examine secondary school infrastructure and distribution to create a register of the buildings and their geographic location in relation to feeder primary schools in the country. I identified the research problem as to do with the need to understand the processes of generating and managing resources in secondary schools. I argued that there was not enough evidence on how schools fared with regard to generating and managing resources. I set the scene and explained that the availability of resources is the cornerstone of sustainable economic and social development of a country in general and progress in education in particular. Olatoun (2012) makes it clear that government and parents' expenditure on education is largely regarded as an investment. There is need for continuous appraisal for public secondary schools to ensure cost effectiveness and prudence on educational resources, as it is the case with business and industry sectors.

In Chapter Two I reviewed literature. The chapter unfolded through eight themes to do with resource generation and management. First, I explained the key concepts and resolved that resources constitute a strategic factor in organisational functioning, so their availability, adequacy and relevance influence organisational efficiency and productivity (Owoeye & Yara, 2011; Ada & Ada, 2013). Secondly, I explored practices in schools regarding resource mobilisation and management through previous studies. There-from, it emerged that expanding and developing educational systems was of high priority in many governments. Also, strategic management is crucial as it promotes knowledge sharing, transparency, monitoring and evaluation. It facilitates development of partnerships with more engagement of civil society and private sector.

Thirdly, I discussed literature on the status of resource provision in Swaziland including issues of record keeping and policy implementation. Fourthly, I examined factors influencing resource generation in other parts of the world. In this section I also discussed strategies and principles of generating resources. Fifthly, I identified and discussed six management functions which managers need in their operation to improve decision making in schools namely planning, organising, leading, coordinating, controlling and commanding. Sixthly, I isolated five important management skills for school managers. One is the use of modern technology skills to care for resources; high involvement management skills; networking skills needed for managers to mobilise educational resources and improved procurement and budgeting skills with a greater focus on value for money. The forth one is human skill, which is the cooperative effort, teamwork and the creation of an environment in which people feel secure and free to express their opinions. Finally it is design skill, the ability to solve problems in ways that benefit the organisation or working out a practical solution to a problem in the light of the realities they face in schools. Seventh, I examined arguments on factors that influence resource mobilisation. These include the use of entrepreneurial approaches in resource mobilisation for organisations. Finally, I touched on some sustainable practices regarding resource generation and management. These include the use of school clusters, sharing expertise, accessing economies of scale when making shared purchases, identifying relevant resource inputs for the attainment of educational goals and ensuring appropriate training and regular supervision of educational resources.

In Chapter Three I explained the theoretical framework of the study. The framework is three-pronged comprising of the following: collegial model, systems theory and funding model. The collegial model is a management approach through which organisational members work as colleagues towards reaching a mutual understanding about objectives of the institution shared among some or all members of the organisation (Bush, 2003). In this case, the collegial model formed part of the justification for the optimistic assumption that it is possible to reach an agreement about school goals and policies as a team. According to Shrifian (2011) the collegial model contends that by developing close relationships with their staff managers develop a more effective working environment. Employees see themselves as a closely-knit team where each member has an important say in the decision-making process.

The systems approach entails a set of different independent parts working together in interrelated manner to accomplish set objectives (Deacon & Fiebough, 1988). The quality of resource inputs available for a school determines the type of result (outputs) (Castillo, 2014). According to Fasasi (2011) it is important for managers to maintain effective interpersonal relationships with the community and external agencies. Therefore, the systems theory suggests that the external environment influences the process of management inside any organisation. Funding models are to do with efficiency and sustainability of resources. They suggest possible strategies that may improve school governance in mobilising educational resources for long-run operation of schools (Downes, 2007).

The three-pronged theoretical framework gave an insight that, in a school system, the teaching and learning process is dynamic and that best results are achieved when the most suitable resources are fed into the teaching-learning processes in the best way possible. This implied that for the success of a school operation there should be cooperation, connectivity and collaboration among systems and sub-systems of education and beyond.

In Chapter Four I presented and explained the methodological toolkit of the study. I positioned the study within the pragmatist paradigm. As explained by Johnson and Onwuegbuzie (2009) pragmatism helps shed light on how research approaches can be mixed fruitfully in ways that offer the best opportunities for addressing the research questions. I reported that the study adopted a mixed methods approach, seeking to explain, understand and capture the processes of generating and managing educational resources in schools. Therefore, I adopted a combination of the quantitative and qualitative methods. These two are

compatible and possess fundamental values to allow their combination within a single study. I discussed the research design as a multiple site case study.

To generate data I utilised multiple-sources including a questionnaire, face-to-face interviews, focus group interviews and document analysis. Informed by literature the mixed methods approaches involve various steps in analysing the data, therefore, I adopted the concurrent triangulation data analysis procedure (Creswell & Clark, 2007).

According to the procedure, each of the quantitative and qualitative data-sets are analysed separately then merged to develop a complete picture. This was followed by answering questions related to data convergence, the extent to which similar types of data confirmed each other and the extent to which open-ended themes supported survey results. I reported that quantitative data were analysed through descriptive statistics and qualitative data by categorisation into related themes. I clarified the processes of trustworthiness as well as ethical considerations.

In the Fifth Chapter I presented and discussed the data. I did so through four themes that emerged from the data analysis namely perspectives on sourcing educational resources; availability, adequacy and management of resources; factors influencing resource generation and management; and sustainable practices in resource generation and management. In the next section I crystallise the findings of the study.

### **6.3 Crystallising the Findings**

At this point I present what I have learnt from the study regarding the generation and management of educational resources in the selected secondary schools. In doing so, I highlight the findings regarding each research question then draw lessons there-from. I use the first and second research questions as springboards to build on towards the third which I consider as the mainstay of the study.

The study's research questions were:

1. How do Head teachers and teachers experience the dynamics of generating and managing educational resources in their schools?
2. What factors do Head teachers and teachers pronounce to affect the generation and management of educational resources in secondary schools?

3. How can sustainable practices of generating and managing educational resources in the selected schools be characterised?

### ***6.3.1 Perspectives about Sourcing Educational Resources***

I found that the schools sourced resources in a similar way. According to the participants, schools got the bulk of funds to run schools from learners' fees. Thus these schools generated resources through internal mobilisation strategies and to a limited extent from external sources. The resources sourced within schools were not enough for the effective operation of the schools. Therefore, the current practices in the schools regarding acquisition of resources argued to have been unsustainable.

Drawing from the funding theories (Downes, 2007), a variety of projects started in schools originate from various sources such as governments, foundations and other organisations, groups and individuals. Even ILO (2012) is of the view that to increase resource mobilisation and sustainability there is need to leverage resources from multiple sources including local communities, the private sector, decentralised government budgets, national and international NGOs, international organisations and development partners. This signifies the importance of promoting community engagement through sound leadership. It is because schools reside within communities they serve (Sontang-Padilla et al., 2012). Therefore, creating collaboration and promoting community engagements may promote a positive change in the perceptions of school leaders towards expanding their horizons.

According to Monsey et al., (1997) and Yun (2010), in education, entrepreneurial approaches in resource generation are helpful in order to lower costs. Schools may consider a variety of possible income generating possibilities such as financial and nonfinancial strategies including grants, donations, wills and gifts. This should be applied in a deliberate, planned and proactive approach. Literature (McCarthy & Zald 2001; Fasasi 2009; Yun 2010; Owoeye & Yara 2011; Bakwai 2013) suggests that the use of various resource generation strategies is an advantage for a school. Therefore this suggests that in Swaziland, a complete overhaul of attitudes and preconceptions about resource generation and management is required (Volansky & Friedman, 2003). Various resource generation strategies can be implored to complement government, boost the school coffers and also improve learner performance. Therefore focus on mobilising external resources is essential.

### ***6.3.2 Availability, Supply and Maintenance of Resources***

While the schools I studied seemed to possess reasonable amounts of resources compared to their enrolments, findings suggest that in most cases some of these resources were largely out-dated. Others needed major repairs. As I also argued above, this scenario seems to challenge the apparent over-reliance on government for resources, on the part of schools. Drawing from literature, several scholars share the view that secondary school education requires a bigger resource base for the success of learners than government can always provide (Agabi, 2010; & Crown, 2012). This calls for a paradigm shift towards involving many other stakeholders in the provision of educational resources.

Regarding resource maintenance in the selected schools, one dynamic was the use stock books to keep records of school inventory. I observed that documentation of inventory books was not broad enough to cover the up-keep of all equipment – physical and material. Another dynamic was the use of cupboards and storerooms to keep material resources in a good state for teaching and learning. Although inventory books proved to be functional, they did not show future maintenance plans of resources. Schools neglected the refurbishing of premises and buildings, the disposal of obsolete resources and repairing of worn out material resources. Resource availability, adequacy and maintenance therefore showed some fluctuating trends in the schools. Thus apart from the need for widening the scope of resource generation, the schools seemed to require better management of the existing ones.

Agabi (2010); Crown (2012); and Trivandrum (2015) put it that schools have a task to manage and administer all school resources entrusted to them with prudence. As discussed in Chapter 1 (Section 1.2) if there is any improper use or mismanagement and embezzlement of school funds and resources, then the administrator responsible must be accountable for such actions. In a school situation, accountability means that the school manager should act on behalf of government (Tanner, 2016). Aishatu (2010) emphasises that school cordial relationships with the community can attract community participation in the affairs of the school, but where the relationship is not cordial the reverse may be the case. This means that in education everyone in society holds a stake in the affairs of the school in one way or the other. Therefore, school managers are responsible for movable or unmovable assets as well as to create a learning environment conducive for teachers and learners.



Afolabi et al., (2008) and Agabi (2010) emphasise that resources are always scarce and limited in supply. Therefore, their management demands some skill, training, careful planning, supervision, co-ordination and some degree of control in schools. In addition, stakeholders expect that a school should make judicious use of the scarce resources in ensuring that they give the greatest return and ensuring efficiency of the school system. Anyadike (2014) also stresses that schools should have a proper maintenance plan for resources. Mengistu (2014) argues that resource management and utilisation are an integral part of the overall management of the school. Methods of record keeping are paramount for schools to improve the quality of teaching and learning and successful operation (Asiabaka, 2008; Fasasi, 2009; Ajileye, 2011; Motsamai et al., 2011). According to Lawanson (2011) educational materials caring require an inventory control. Inventory control provides storekeepers with information about educational resources and materials that are in use or in storage. Elloff (2009) and Trivandrum (2015) say that the inventory register should contain certain information like name of article; quantify of articles; date of purchase; name of the firm which supplied the articles; authority ordering purchase; signature of authority; how much the article cost; warranty of the article; insurance cover of the article; method of depreciation used and date of physical stock taking. So, lack of careful inventory control could lead to inefficient use of resources and wastage of the financial resource by making unnecessary purchases in schools.

### ***6.3.3 Factors Influencing Resource Generation and Management***

Findings in this regard revealed that putting expensive educational resources in common cluster offices can help increase access by all schools concerned. When resources are available, there is likely to be improvements in school performance and attraction of best teachers. Another finding was that having an extended resource base attracts more learners and enables effective teaching and learning activities in schools. The indication therefore was that schools were to increase the level of responsibility regarding resource decisions and broaden their resource bases.

On the other hand, there were a myriad of factors inhibiting resource generation and management in the secondary schools in question. One was about lack of training on the part of school managers with regards to managing the resources as well as lack of support services. As I reported earlier, there was laxity on the part of schools to self-generate resources. Another was poor funding of schools. There was also an apparent lack of

appropriate resource management methods and techniques that work well in the local school context. Another factor was lack of management skills by school managers. These suggested that there was lack of strategy in resource mobilisation and management approaches for schools.

With regard to all factors affecting generation and management of educational resources in schools, it was clear that there were weaknesses in the way resources were generated and managed. McCarthy and Zald (2001) report that in published case studies there is often lack of experience, good practice and practical training and support services in schools regarding resource management. This suggests that school heads need capacity development.

#### ***6.3.4 Sustainable Practices in Resource Generation and Management***

In this section I reflect on the sustainable practices of generating and managing educational resources in the schools in the light of the third research question of the study. In a school situation, sustainability can be viewed as the continuity of operations, accomplishing the education goals using available resources and expanding the resource base as well as creating positive relationships with the environment.

One practice that schools may require for sustainability is the need for a change of school culture from dependence on government towards one of active generation of additional resources. This is because from the findings it was clear that resource generation in the schools was internally focused and narrow. Having a constant flow of funding may support learners from poor backgrounds, orphan and vulnerable children and finance the operation of the schools. Afolabi et al., (2008) remark that money is needed to maintain plant, keep the services going, buy text books, establish new buildings, buy equipment and maintain other services that are required by a school to carry out its functions as an educational institution for the future. Therefore, it is important for schools to have dynamic and continual flows of income to keep them going. As indicated by Batti (2014) challenges faced by non-profit organisations like schools include: capacity limitation within the organisations to pursue appropriate funding, accountability and transparency that is, failure to meet requirements. This says it all that school operation is impossible without financial flows to cater for all resource needs as identified in findings.

D'Arcy, Gatrell, Kleinsasser, Kyndt, Li, Slocum Jr., and Wekerle (2016) argue that an organisation in search of unrestricted funding would do well to expand their base of individual givers, thus achieving independence. The starting point should be within the school itself. Therein are possible sources of funding, such as income raised by an active PTA. The latter can organise fund raising events that are normally accounted for in a separate school fund. Outside the school, resources can be in any form such as finances, technology, manpower both skilled and labour, knowledge and information. Monetary resources may include financial contributions from communities, grants from local authorities, donations from individuals and bank loans. Also, regarding lack of funding in schools, Preston, Brittany, Kooymans (2013) argue that the most influential medium for receiving extra finances lie in the principal's ability to prepare a solid and convincing case for a particular grant or award. Therefore, school managers need to be tactful (Vide Chapter 3, Section 3.5.2) to be able to convince stakeholders that money spent on education is an investment in a wealth-creating venture whose magnitude or multiplying effect cannot easily be quantified (Preston, et al., 2013). Also, Gebreyes (2013) and Oluremi (2014) also show that it is important for educational planners and administrators to ensure that there is enough financial support for the mobilisation of resources and fair distribution of all educational resources to schools in order to achieve quality education. This dynamic suggests the need for proper budgeting, planning for resources and setting aims and objectives to enhance education and productivity in schools.

Also, active generation of extra educational resources may be achieved through proactive strategic planning in schools (Nyirenda, 2014). Since it is clear that government alone cannot be able to provide all the resource needs of all her schools, it is necessary to create an enabling environment for private investment in secondary education. Therefore, to ensure sustainability of educational resources, the MoET, planners, partners and stakeholders need to work in collaboration and coordination to ensure that secondary education is efficiently resourced. This may be through relaxing borrowing conditions and regulations for those supporting secondary education and giving professional support to schools in order to meet and cater for their needs. Industries may pay a certain percentage of their profits to contribute as visible and invisible investments to education in their locality. Certainly, schools should have substantial transparency of information and accountability to enhance quality education for optimal productivity. Thus the MoET needs to make regular checks, receive regular reports on schools private fundraising activities and ensure that these are regularly audited.

Another route to generating own additional resources is through forming partnerships for educational sustainability. Forming public private partnerships (PPPs) to sustain educational resources was suggested by most participants. As I have already reported, schools' resource generation and management practices seemed low and inward looking in the schools. The PPPs therefore can link schools with financiers for their development and school strategic planning may be made successfully proactive. This suggests that schools require more preparation and skills development towards the use of new methods in dealing with external partners. Modern methods of resource management require knowledge sharing, transparency, monitoring and evaluation; and facilitate development of partnerships with more engagement with civil society and private sector (Monsey et al., 1997; Jenks, 2012). Therefore, schools may address financial constraints to operation by establishing high-impact partnerships with organisations that have similar strategic goals. Collaborations may also benefit schools in low-resourced areas by building capacity to perform formal evaluations and demonstrate the value of their operations. Establishing the PPPs may also help in conducting practical SSPs in schools.

Strategic planning in schools covers the comprehensive process to connect needs with resources, establish priorities and relook into the vision, mission and strategy as a way of bringing change in attitude and new approaches to operation (Zhimin et al., 2013). It is also necessary to set up short, medium and long term infrastructural development plans for all secondary schools that are informed by the long term development plans from the government policies on how schools should be furnished with resources. Therefore, it is clear that, there should be tight or logical connections between mission, vision, goals, actions and responsibilities of schools. If there is no strategic planning, then there may be difficulties in applying preventive maintenance and there is no direction to future short and long term plans for school operation resource up-keep.

Since there were no strategic plans in the schools there were no plans covering comprehensive processes to connect needs with resources and to establish priorities. This brought about evidence that school leaders seemed low in creative, innovative and proactive approaches, having a shared vision as well as budgetary processes in school operation. Therefore, engaging stakeholders and community members in a number of activities is likely to promote social action for the protection of their schools' facilities. This view therefore calls for the attention of the planning unit to attempt organising for educational managers and

staff, periodic capacity development workshops and seminars on strategic planning to enable them grasp the fundamentals. Also, it calls for a change in the way schools approach planning, leading and governance, but in a simple and relevant way. This can help schools address directly the core function of schooling. Participation of parents and school committees in the decision system regarding educational resources is appropriate to allow efficient and effective teaching and learning processes. So, confidence in planning strategically may bring about positive change in schools by involving PPPs.

According to Batti (2014) effective governance structures where boards effectively provide strategic leadership ensure that resources are mobilised for their organisations. This suggests that newly appointed school managers need to be trained and be introduced to induction programmes so as to be confident in their newly appointed positions. Also they may be provided with resources and training facilities immediately after being promoted to their management positions. This can enhance their educational material management and utilisation capacity through work-shopping them (Seltzer, 2014). Therefore, HTs and HODs at secondary school level need to possess adequate leadership, knowledge and skills to effectively manage available physical and material resources in schools. This has implications on creating a clear strategic plan that defines the social mission and builds programmes, community support, and collaborative partnerships that closely align with the mission may help nonprofits overcome the challenge of establishing sustainability in the short and long term. Therefore, forming PPPs for resource mobilisation, inviting donors to support schools, conducting evaluations for funding and setting new targets widen the external collaboration with stakeholders. Opening up to the outside world may draw attention to more partners' support to the whole education system and promote sustainability for resource generation and management practices.

Another factor as I earlier reported is that it is crucial for schools to pool resources together in clusters. According to participants' responses, schools can be grouped into clusters then be able to purchase resources and put them into one central office. When a school cannot afford buying especially the expensive resources, they can use those materials from the central office jointly thus increasing chances to meet their resource needs. This can bear positive benefits for schools and performance as well. This means that with the limited resources already invested in education they should be properly utilised to yield optimum output. Using cluster purchasing also advocates for forming processes that are enabling, participatory, and

creating the conditions for sustainable management of the resources in the cluster offices. This practice is to do with decentralisation or high involvement management, where the work is best done collegially or in teams, in the dynamic environment in schools. This involves offering ways to promote improvements by giving stakeholders more control over what happens in schools.

The cluster method of sustaining resources may be best approached by establishing structures that are flexible, simple and concise enabling people to discuss new directions. Afolabi et al., (2008) and Agabi (2010) emphasise that as resources are scarce and limited in supply, therefore their management demands some skill, training, careful planning, supervision, co-ordination and some degree of control in schools. This means that schools should be operated in a way that encourages decisions that involve all stakeholders. This can bring about better methods of acquiring resources in order to accomplish goals and have sustainability. For example, entrepreneurial approaches to management of schools may be adapted. It is also important to re-value existing structures and processes so that the objectives of the school are achieved at the lowest possible cost. As suggested by the collegial theory (Vide Chapter 3, Section 3.3.1), the way a school is managed promotes collaboration and reduces conflict between staff and motivates them to share and generate the school's values within the work environments even at regional level (Castillo, 2014). Thus the environment in schools may increase the life span of resources. This also implies the need for increasing collaborative efforts within and outside the schools to establish structures and processes that teach about resource distribution and categorisation.

A forth dynamic in resource sustainability is that internally it is crucial for a school to maintain and repair resources adequately. Findings showed that resource maintenance in schools was narrow and laid focus on material resources at the expense of physical ones. Agabi (2010) and Crown (2012) emphasise that schools have a task to manage and administer all school resources entrusted to them with prudence. Also, resource management and utilisation is an integral part of the overall management of the school. Other literature also confirms that special attention must be focused on prudent management of educational resources in order to sustain quality education (Afolabi et al., 2008; Agabi, 2010 & MASH organisations, 2012). Therefore, a proper maintenance culture must be deeply rooted in schools. Clarke (2007) and Anyadike (2014) are of the opinion that as technology advances it necessitates that the school manager too should adopt modern methods of facilities

management in order to improve the quality of teaching and learning. Therefore, the school manager is not only responsible for physical and material resources but also it is their responsibility to create the learning environment to be conducive for teachers and learners (Wohlstetter & Mohrman, 1993). They are accountable for the results to their immediate constituent. Accountability is related to responsibility and ownership if people are involved in decision-making about matters affecting their schools. It is the responsibility of the HT as manager to involve teachers, learners and community in decisions more especially with regard to school resources and materials so that each one of them is accountable. Accountability in this case, more especially in relation to the infrastructure and material resources, means institutionalising the responsibility according to departments and meeting of formal educational expectations. Therefore, school facilities are not the responsibility of the HT alone but for everybody on the school premises. So it is actually important for schools to understand this in a bid to be concerned and to sustain the educational resources in schools. Therefore, timely, adequate and relevant training for secondary school administrators is of essence in their management roles to minimise and avoid managerial shortcomings.

To enhance a school's internal capacity may be through assigning resource duties to others. As discussed in Chapter 3, Section 3.4.1, organisations need to operate as systems with sub-units such as related to each other and to the institution itself (Castillo, 2014). Therefore, the issue of categorising resources in the case of schools means assigning them to departments. This may add to productivity, efficiency and effectiveness of school operations. Ellof (2009) argues that a sub-committee called asset management committee can be formed to oversee the management of physical and material resources. This committee can procure, maintain and control the physical and material resources around the school. So, ensuring the good maintenance of resources widely promotes the aims of education. A well implemented and communicated plan holds all staff accountable for their actions and encourages collaboration.

Freeman (2014) argues that an ICT asset manager can help a school track all of its asset purchases and usage, minimise losses and pinpoint the locations of all assets in its entire inventory. Trivandrum (2015) adds that a separate stock register for the office stores and furniture where items are recorded such as desks, chairs, tables, printers, computers, photocopying machines, need to be maintained in schools. Physical verification of stock and articles need to be conducted once every year or wherever there is change in the officer in

charge of the articles and to the effect that the stock of article has been physically verified and found correct. This should be recorded in the stock register on proper attestation. The storage and purchase rules should be observed for the purchase of resources, quotations received and a comparative statement are kept for verification in audit (Trivandrum, 2015). Therefore, a sustainable practice for resource management is that of proper record keeping, verification and checks in the schools need to be done properly. This means that each committee deals with a small portion of resources and they can benefit from specialisation. Also this is likely to increase accountability which spans across the entire education, eliminate double purchasing, observe less loss between ordering, delivery and installation, and can cut waste and inefficiency. Therefore, this brought to my mind the security of the resources and the rate at which there is need and requirement for changing or replacing the resources especially fixed assets because they depreciate and lose value every year. So, an improvement in management tasks for secondary schools and connection with the outside and internal partners may be a sustainable good practice. Sustainability of resources can be possible if the achievement of the set goals are secure and that increasing efficiency does not undermine the effectiveness, quality and equity of education.

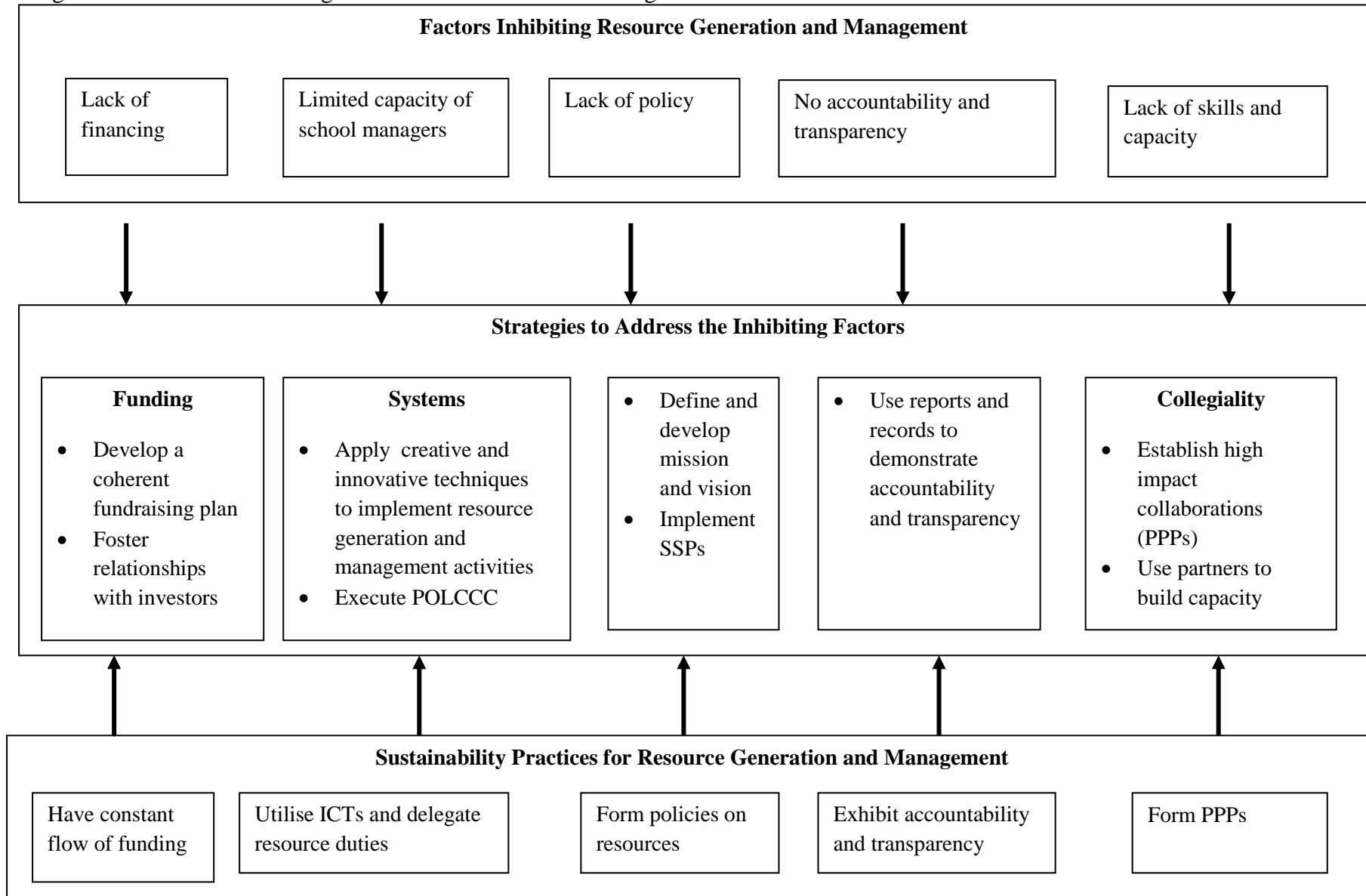
A fifth factor on sustainability practices is that it is crucial to have policy guiding principles on resource generation and management in schools. Findings suggested that schools need to have some additional policies regarding the management of resources. For example, there was no textbook policy giving guide to the distribution and determining the life span of a book. Also there was no guiding policy on the maintenance and mobilisation of resources in schools. This means schools seemingly are likely to operate without enough direction. The policy suggestions therefore advocate for establishing ones that are enabling, participatory and meeting the conditions for sustainability. The general conclusion I drew was that the extent of decision making responsibility transferred to stakeholders and administrators was limited and needed to be extended.

In summary, Since the aim of any school is to deliver the best possible education to its learners and leverage the resources that are already being spent on such services (School in a Box Guide Series, 2008 & Bray, 2010), it is important to achieve more efficient allocation of resources, improve decision making, consider new funding models and tapping on community resources. Working collaboratively with stakeholders is likely to ensure better decision making and increase the success of sustainable practices on resource management



(Renz, et al., 2010). In this case, I can safely say breaking down barriers; better aligning and utilising community resources may help schools access low cost education services or facilities. Therefore, schools may be better able to make long-term decisions. Ultimately, schools may need to be strategically willing to operate in stretch zone than in the comfort levels they are currently operating in. The MoET, planners, schools and all parties concerned may have to view resource generation and management as a dynamic and continual process that may help reduce administrative costs in school and foster a culture of investing in sustainable practices. Therefore, understanding the interaction between the economic and societal contexts for schools and the sustainability of resources is necessary to maximise strategies to address the challenges and improve school operation. In figure 6.2, I illustrate a conceptual model showing a summary of factors influencing the generation and management of resources and the promising sustainable practices that schools may exercise to promote long-term operation.

Figure 6.1: Factors Influencing Resource Generation and Management and Sustainable Practices for Resources



## **6.4 Suggestions for Further Research**

In this section I provide a discussion in connection with areas that suggest thoughts for further research. A similar study needs to be carried out in the other secondary school categories to investigate management of resources. This study was conducted in two regions of Swaziland. Further research is needed in the whole country to explore the problem on a large sample to give a true and broader picture of resource distribution and management in secondary schools. This will help MoET as school directorship to recruit school managers who are willing to work hand in hand with the Ministry. The MoET can be able to mobilise more development partners who are willing and able to take initiatives and provide valid service support to schools. A study on effects of physical and material resources on school performance needs to be carried out. A comparative study on policy and practice may also need to be carried out in schools. This still emphasises the importance of resources in the quality of education to produce quality human capital.

The present study was mostly carried in urban schools; further research is required to adequately cover the contextual issues of rural school. For example, such questions on: how educational, social and physical aspects of rural school leaders compare and contrast to urban school leaders? How community cultures affect secondary school leadership in decision making to implement change? What leadership styles secondary HTs tend to embody and why? What common benefits and challenges are faced by secondary school HTs in the various school categories? These may be a few research questions that can be addressed through future research.

## **6.5 Limitations of the Study**

Although the research was successful in the six participating schools, there were some limitations observed in this study. The number of participating schools was a limitation of the study because generalising and applying results from few cases to the entire population may not be assumed without a problem. Another shortfall was that there was lack of current local researches and reference materials to compare results of the study. On another note, even though participants were aware about my position as a Curriculum Designer, my presence affected some of them by not opening up enough to give the information I requested. They thought I was an Inspector of schools. It took them time to grant me permission to conduct the study. Another weakness emanated from the time of gathering data, opening up was not

so smooth. Initially I had planned to interview participants, but it was examinations time and most participants were held up with this task. This took time of which I had to play courting tricks to build their confidence and to make them comfortable. I had sent a questionnaire to participants but some did not respond to them fully. Also, I was not able to make follow up on some questionnaire answers because time did not allow me to do that. Despite these challenges, I exerted utmost effort and I was able to overcome some the problems by holding prolonged discussions with the participants. But generally, it is clear that research work cannot be free from constraints.

### **6.6 Ending the Research Journey**

This study crystallises that sustainability regarding educational resources depend on the extent to which the dynamics of generating and managing resources are continuously brought into use by the schools. The physical and material resources are inevitable and a corner stone to accomplish educational objectives, providing quality education

At the heart of education sustainability there is finance to acquire resources, human capital, commitment and willingness by partners to support each school operation. Therefore, it is my hope that the information herein may assist government, leaders, policymakers, researchers, school managers, parents and community members who are interested in supporting and promoting the management of educational resources to bring change in school operation. As the country is developing towards first world status and wealth creation, more resource support is needed in schools to sustain education. Therefore, there is need to apply a cohesive, systematic and continuous approaches to improve the school system through policy and practice. Summing up, all the issues raised may need to be addressed in earnest by the MoET in consultation with relevant parties to avoid poor quality secondary education in the present and future. Therefore, it is in order that this is how I understand the dynamics of educational resource generation and management in selected Swaziland secondary schools.

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## **APPENDICES**



## APPENDIX 1: PERMISSION LETTER FROM MOET

The Government of the Kingdom of Swaziland



Ministry of Education & Training

Tel: (+268) 24042491/5  
Fax: (+268) 2404 3880

P. O. Box 39  
Mbabane, Swaziland

12 February 2015

Attention:

Headteacher:

Mass High

Malta High

Mega High

Masiko High

Mango High

Miko High

Through:

Regional Education Officers – Hhohho and Manzini

Dear Colleague,

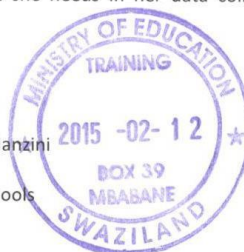
**RE: REQUEST FOR PERMISSION TO COLLECT DATA FOR UNIVERSITY OF KWAZULU NATAL STUDENT – MS.DORIS NOMPUMELELO MYENI**

1. Reference is made to the above mentioned subjects.
2. The Ministry of Education and Training has received a request from Ms. Doris Nompumelelo Myeni, a student at University of KwaZulu Natal, that in order for her to fulfill her academic requirements at University of KwaZulu Natal, she has to collect data (conduct research) and her study or research topic is *"The Dynamics of Generating and Managing Educational Resources in Swaziland Secondary Schools"*. The population for her study comprises of all learners, teachers and principals of the sample schools. All details concerning the study are stated in the participants consent form which will have to be signed by all participants before Ms. Myeni begins her data collection. Please note that parents will have to consent for all the participants below the age of 18 years participating in this study.
3. The Ministry of Education and Training request your office to assist Ms. Myeni by allowing her to use above mentioned schools in the Hhohho and Manzini regions as her research sites as well as facilitate her by giving her all the support she needs in her data collection process. Data collection period is one month.

  
**M.E. KHUMALO**

**ACTING DIRECTOR OF EDUCATION AND TRAINING**

cc: Regional Education Officers – Hhohho and Manzini  
Chief Inspector – Secondary  
6 Head teachers of the above mentioned schools  
Prof. V. Chikoko



## APPENDIX 2: GATE KEEPERS' LETTER

**D. MYENI**

**National Curriculum Centre Manzini**

**Telephone: 268 2505 2106/7**

**Mobile: 268 7611 1223**

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**The Principal \_\_\_\_\_ School**

05 March 2015

Sir/ Madam

**REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT  
\_\_\_\_\_ SCHOOL**

I am presently studying towards a Doctoral Thesis at the University of Kwazulu Natal. I wish to conduct my research at \_\_\_\_\_ High School during the period May to September 2015 and hereby seek your permission.

The research topic is: **The Dynamics of Generating and Managing Educational Resources in Swaziland Secondary Schools**. The purpose of the research is to identify experiences, factors and challenges that schools face in generating and managing educational resources, and find possible ways to be applied in resources management in the school system.

The study will involve questionnaires and interviews. Consent forms will be issued to all participants prior to issuing the questionnaires and holding the interviews. School personnel will be interviewed at a time convenient to them. Questionnaires will be filled in at the convenience of the participants.

I wish to assure of the following:

- Participants will not be identifiable in any way from the research results.
- Participation will be voluntary
- Confidentiality and anonymity of all participants will be respected and assured.
- The institution will not be identifiable by name in the research results.
- A synopsis of findings and recommendations will be made available to the school.

The researcher will wish to audio-record the interviews and hereby seek permission to do so.

I trust that my request will be favourably considered.

Yours sincerely

D. Myeni

### APPENDIX 3: PERMISSION LETTER FROM MANGO SCHOOL

05 June 2015

Dear Sir/Madam

**RE: DORIS MYENI PERMISSION TO CONDUCT RESEARCH AT MANGO HIGH SCHOOL**

Reference is made to the above mentioned subject. Manzini Central High School has received a request from Ms Doris N. Myeni, a student with the University of KwaZulu-Natal, to conduct research at the school on the topic: **The Dynamics Generating and Managing Educational Resources in Swaziland Secondary Schools.**

Her request has been granted; she is allowed to use the school as her research site and she can audio-record her interviews as requested. The school is willing to help and support her in her data collection processes.

Yours Faithfully

#### **APPENDIX 4: PERMISSION LETTER FROM MASIKO SCHOOL**

June 5, 2015

Dear sir/ madam

**Re: DORIS MYENI PERMISSION TO CONDUCT RESEARCH AT  
MASIKO HIGH SCHOOL**

Reference is made to the above mentioned subject. Swazi National High School has received a request from Ms Doris Myeni, a student with the University of KwaZulu-Natal, to conduct research at the school on the topic: **The Dynamics Generating and Managing Educational in Swaziland Secondary Schools.**

Her request has been granted; she is allowed to use the school as her research site and she can audio-record her interviews as requested. The school is willing to help and support her data collection processes.

## **APPENDIX 5: PERMISSION LETTER FROM MEGA SCHOOL**

4<sup>th</sup> June 2015

Dear Sir/Madam

RE: DORIS MYENI PERMISSION TO CONDUCT RESEARCH AT  
**MEGA HIGH SCHOOL**

Reference is made to the above mentioned subject. Mhlatane High School has received a request from Ms Doris N. Myeni, a student with the University of KwaZulu-Natal, to conduct research at the school on the topic: **The Dynamics Generating and Managing Educational Resources in Swaziland Secondary Schools.**

Her request has been granted; she is allowed to use the school as her research site and she can audio-record her interviews as requested. The school is willing to help and support her in her data collection processes.

Yours faithfully



## **APPENDIX 6: PERMISSION LETTER FROM MIKO SCHOOL**

5 June 2015

### **TO WHOM IT MAY CONCERN**

This letter serves to confirm that Ms Doris Myeni has been granted permission to conduct her research here. The School is willing to help and support her data collection.

Yours obediently

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*FOR ANY INCORRESPONDANCE PLEASE REFER TO THE ADMINISTRATION*

## APPENDIX 7: PERMISSION LETTER FROM MALTA SCHOOL

Dear Sir / Madam

**RE: DORIS MYENI PERMISSION TO CONDUCT RESEARCH AT**  
**MALTA HIGH SCHOOL**

Reference is made to the above mentioned subject. St Mark's High School has received a request from Ms Doris N. Myeni, a student with the University of KwaZulu natal, to conduct research at the school on the topic: **The Dynamics of Generating and Managing Educational Resources in Swaziland Secondary Schools.**

Her request has been granted; she is allowed to use the school as her research site and she can audio- record her interviews as requested. The school is willing to help and support her in her data collection processes.

Yours faithfully

04 JUN 2015  
PRINCIPAL



## **APPENDIX 8: PERMISSION LETTER FROM MASS SCHOOL**

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June 4, 2015

**To whom it may concern**

Dear Sir/ Madam

**RE- PERMISSION TO DO RESERCH AT MASS HIGH SCHOOL BY MS DORIS MYENI**

This serves to confirm that permission was gladly given to Ms Diris Myeni to do research on **THE DYNAMIC OF GENERATING AND MANAGING EDUCATIONAL RESOURCES IN SWAZILAND SECONDARY SCHOOLS** at the above mentioned school.

Her request to use the school as research site has been granted by the school office. The school will help support in her data collection process.

Yours faithfully



## APPENDIX 9: ETHICAL CLEARANCE CERTIFICATE



18 June 2015

Mrs Doris N Myeni 214584923  
School of Education  
Edgewood Campus

Dear Mrs Myeni

Protocol reference number: HSS/0493/015D

Project title: The dynamics of generating and managing educational resources in Swaziland secondary schools

### Full Approval – Expedited Application

In response to your application received on 18 May 2015, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

**PLEASE NOTE:** Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shamila Naidoo  
On behalf of Dr Shenuka Singh (Chair)  
Humanities & Social Sciences Research Ethics Committee

/pm

Cc Supervisor: Prof V Chikoko  
Cc Academic Leader Research: Professor P Morojele  
Cc School Administrator: Ms T Khumalo

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Humanities & Social Sciences Research Ethics Committee

Dr Shenuka Singh (Chair)

Westville Campus, Govan Mbeki Building

Postal Address: Private Bag X54001, Durban 4000

Telephone: +27 (0) 31 280 3587/8350/4557 Facsimile: +27 (0) 31 280 4609 Email: [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za) / [snymann@ukzn.ac.za](mailto:snymann@ukzn.ac.za) / [mohung@ukzn.ac.za](mailto:mohung@ukzn.ac.za)

Website: [www.ukzn.ac.za](http://www.ukzn.ac.za)



Founding Campuses ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

## **APPENDIX 10: LETTER OF CONSENT**

**D. MYENI**

**National Curriculum Centre, Manzini**

**Telephone: 268 2505 2106/7**

**Mobile: 268 7611 1223**

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**For attention:**

**Date:**

Dear Sir/Madam

### **LETTER OF CONSENT TO PARTICIPATE IN RESEARCH**

I wish to include you in a research project that studies **“the dynamics of generating and managing educational resources in Swaziland secondary schools”**. In the study I wish to investigate experiences schools have regarding managing resources and find possible strategies that may be applied for the sustenance of educational resources and operation of the school system. My supervisor is Professor V. Chikoko and can be contacted at the University of Kwazulu Natal on +2731 260 2639.

To help me in my research, I will request you to: (1) fill a questionnaire with information on generating/mobilising, maintaining and managing educational resources; (2) participate in an interview on generating and managing educational resources; (3) participate in a focus group interview with me that will revolve around experiences, factors, challenges and best practices that can be applied by schools in generating and managing educational resources; (4) have a document analysis of inventory record of resources/facilities in the school. This will enable me to get a full picture of the school operation in its environment.

Only researchers will have access to the information collected in this project which will be kept in a locked storage at the University for a period of five years following the completion of the research project. Neither your name nor your school's name will appear in any reports of this research. You will have the right to review any information being used with regard to your participation.

Participation in this project is voluntary and involves no unusual risks or harm to you or your school. You may withdraw from the project at any time with no negative or undesirable consequences to yourself. Your participation in the project will help in developing the best or modified ways of resource generation and management for schools.

The researcher will wish to audio-record the interviews and hereby seek your permission to do this.

If you are willing to participate, please indicate this decision on the attached permission slip. In addition, if you have any questions about the research project or would like me to review the information prior to providing consent, I may be contacted at the numbers listed above and below.

Thanking you in advance for your anticipated cooperation in this regard.

Yours sincerely

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Doris N. Myeni

## INFORMED CONSENT

I, ..... (Full name of participant) hereby confirm that I understand the contents of this letter, fully and I do consent to participate in the study by D. N. Myeni entitled: **The dynamics of generating and managing educational resources in Swaziland secondary schools**. I do consent to the audio-recording of my interview/ focus group interview. I am also aware that there are no unforeseeable direct risks or harm associated with my participation in this study.

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**Signature**

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**Date**

**For more information, you may use the following details:**

- Doris N. Myeni Mobilel No: (268) 7611 1223; email: [doris.myeni@yahoo.co.uk](mailto:doris.myeni@yahoo.co.uk)
  - Project Supervisor: Prof. V. Chikoko; Tel No.: (031) 260 2639; email: [chikokov@ukzn.ac.za](mailto:chikokov@ukzn.ac.za)
- Or
- Officials in our research office: Ms. P. Ximba, (HSSRES UKZN research office). Tel No: (031) 260 3587; email: [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za)

Thanking you in advance for your cooperation.

Yours in education



Mrs D. N. Myeni

## **APPENDIX 11: LETTER OF VALIDATION FOR QUESTIONNAIRE**

**VALIDATION FORM**  
**For Head Teachers and Heads of Departments' Questionnaires**

Researcher	Validator
<b>Name:</b> <i>Doris N. Myeni</i> <b>Title:</b> <i>Mrs</i> <b>Institution:</b> <i>University of Kwa-Zulu Natal</i>	<b>Name:</b> <i>Prof Comfort B.S. Mndebele</i> <b>Title:</b> <i>Associate Professor</i> <b>Institution:</b> <i>University of Swaziland</i> <b>Occupation:</b> <i>Associate Professor; Teaching; Research; Community</i>

The attached questionnaires are to be administered to Head teachers and Heads of departments, based on effective management of educational resources. The purpose of the questionnaires is to seek administrators' opinions on challenges faced by schools in mobilising and managing educational resources, factors affecting the generation and management of educational resources, and practices of effectively managing educational resources for sustainability.

You are kindly requested to provide feedback on the validity of the questionnaires by responding to the questions below. You can provide your feedback by inserting a cross [x] in each space provided. Your feedback to the questions will be highly valued for the success of this research.

No.	Questions	YES	NO
1.	Are the items in the questionnaire representative of the research objectives and purpose?	<i>Yes</i>	
2.	Are the items in the questionnaires at the level of understanding of the administrators?	<i>Yes</i>	
3.	Will questionnaires be able to gather information on the research questions?	<i>Yes</i>	
4.	Are the questionnaires valid?	<i>Yes</i>	

**VALIDATION FORM**  
**For Head Teachers and Heads of Departments' Questionnaires**

<b>Researcher</b>	<b>Validator</b>
<b>Name:</b> <i>Doris N. Myeni</i> <b>Title:</b> <i>Mrs</i> <b>Institution:</b> <i>University of Kwa-Zulu Natal</i>	<b>Name:</b> <i>Prof Comfort B.S. Mudebele</i> <b>Title:</b> <i>Associate Professor</i> <b>Institution:</b> <i>University of Swaziland</i> <b>Occupation:</b> <i>Associate Professor; Teaching; Research; Community</i>

The attached questionnaires are to be administered to Head teachers and Heads of departments, based on effective management of educational resources. The purpose of the questionnaires is to seek administrators' opinions on challenges faced by schools in mobilising and managing educational resources, factors affecting the generation and management of educational resources, and practices of effectively managing educational resources for sustainability.

You are kindly requested to provide feedback on the validity of the questionnaires by responding to the questions below. You can provide your feedback by inserting a cross [x] in each space provided. Your feedback to the questions will be highly valued for the success of this research.

<b>No.</b>	<b>Questions</b>	<b>YES</b>	<b>NO</b>
1.	Are the items in the questionnaire representative of the research objectives and purpose?	<i>Yes</i>	
2.	Are the items in the questionnaires at the level of understanding of the administrators?	<i>Yes</i>	
3.	Will questionnaires be able to gather information on the research questions?	<i>Yes</i>	
4.	Are the questionnaires valid?	<i>Yes</i>	



**Purpose of the study:**

The study seeks to investigate the dynamics among schools of effective resource management and sustainable practices of generating/mobilising educational resources. It hopes to contribute knowledge to policy regarding strategies for sustainable practices in educational resource generation and management.

**Objectives of the study:**

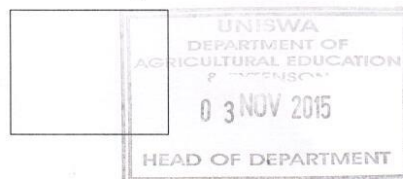
1. To find out how Head teachers and teachers experience generating/mobilising and managing educational resources in their schools.
2. To identify factors affecting generating and managing educational resources in secondary schools.
3. To generate knowledge regarding sustainable practices in educational resource generation, procurement and management in the selected secondary schools.

Please provide comments, if necessary, on the strengths and weaknesses of the questionnaires.

Signature: 

Date: November 3<sup>rd</sup> 2015

Official Stamp:



## APPENDIX 12: QUESTIONNAIRE FOR HEAD TEACHERS

This questionnaire seeks to gather information regarding the generation and management of educational resources in secondary schools.

**The questionnaire has five sections. Please complete all the sections.**

<b>Section A:</b>	<b>Biographical Information</b>
-------------------	---------------------------------

**A1. Gender:** Please tick (✓)

	<b>Response</b>
Male	
Female	

**A2. Experience in years as Principal:** Please tick (✓)

<b>Experience (years)</b>	<b>Response</b>
1 – 5	1
6 – 10	2
11 – 15	3
16 – 20	4
21 – 25	5
Above 25	6

**A3. Highest academic qualification:** Please tick (✓)

<b>Name of qualification</b>	<b>Response</b>
Certificate	1
Diploma	2
Bachelor's Degree	3
Honour's Degree	4
Master's Degree	5
Other (Specify):	6

**A4. Highest professional qualification:** Please tick (✓)

Name of qualification	Response
Certificate in Education	
Post Graduate Certificate in Education	
Diploma in Education	
Post Graduate Diploma in Education	
Bachelor of Education	
Honour's Degree in Education	
Other (Specify):	

<b>Section B</b>	<b>Information Regarding the Current State of Affairs of the School</b>
------------------	---

**B1.** What is the total enrolment of learners and teaching staff in your school? Please write the number in the box.

	Response
Teachers	
Learners	

**B2.** Please write the number of existing/available resources in your school. Write the number in the box provided and N/A if not applicable.

No.	Resources	Number	Not Applicable (N/A)
B2.1	Library(s)		
B2.2	Science laboratory(s)		
B2.3	Cookery/Home Economics laboratory(s)		
B2.4	Agriculture laboratory(s)		
B2.5	Computer laboratory(s)		
B2.6	Computers		
B2.7	School Farm/Garden		
B2.8	Classrooms/teaching rooms		
B2.9	Extra rooms for teaching		

No.	Resources	Number	Not Applicable (N/A)
B2.10	Technical workshops		
B2.11	Strong room(s)		
B2.12	School hall(s)		
B2.13	Sports field(s)		
B2.14	<b>Equipment:</b> Photocopier(s)		
	Printer(s)		
	Telephone(s)		
B2.15	<b>Store rooms in:</b> Kitchen(s)		
	Workshop(s)		
	Laboratory(s)		
B2.16	Book store room(s)		
B2.17	Principal's office		
B2.18	Deputy Principal's office		
B2.19	Number of subjects offered		
B2.20	Staff room		
B2.21	<b>Toilet(s):</b> Pit		
	Water		
B2.22	Furniture: Tables		
	Desks		
	Chairs		
B2.23	Other:		

**B3.** Do you think the following resources are adequately supplied in your school? Please tick (✓) your opinion in each row.

<b>No.</b>	<b>Resources</b>	<b>Inadequately</b>	<b>Adequately</b>	<b>Most Adequately</b>
B3.1	Library	1	2	3
B3.2	Science laboratory	1	2	3
B3.3	Cookery (Home Economics) laboratory	1	2	3
B3.4	Agriculture laboratory	1	2	3
B3.5	Computer laboratory	1	2	3
B3.6	Computers	1	2	3
B3.7	Agriculture laboratory	1	2	3
B3.8	Classrooms/ teaching rooms	1	2	3
B3.9	Technical workshops	1	2	3
B3.10	School hall	1	2	3
B3.11	Sports fields	1	2	3
B3.12	Photocopiers	1	2	3
B3.13	Store room	1	2	3
B3.14	Strong room	1	2	3
B3.15	Staff room	1	2	3
B3.16	Book room	1	2	3
B3.17	Principal's office	1	2	3
B3.18	Deputy Principal's office	1	2	3
B3.19	Kitchen	1	2	3
B3.20	Toilets	1	2	3
B3.21	Telecommunication facilities	1	2	3

**B4.** Please indicate the extent to which you agree or disagree with the following statements. Educational resources like text books, physical structures, equipment are mobilised in the following ways for my school. Please tick (✓) your view in each row.

<b>Not at All</b> <b>(1)</b>	<b>Little Extent</b> <b>(2)</b>	<b>High Extent</b> <b>(3)</b>	<b>Very High Extent</b> <b>(4)</b>
---------------------------------	------------------------------------	----------------------------------	---------------------------------------

<b>No.</b>	<b>Statement</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
B4.1	By government grant	1	2	3	4
B4.2	By parents' payments	1	2	3	4
B4.3	By fundraising initiatives	1	2	3	4

<b>Section C</b>	<b>Management of Educational Resources</b>
------------------	--

**C1.** How adequate do you regard the maintenance of the following educational resources?

<b>No.</b>	<b>Statement</b>	<b>Very Inadequate</b> <b>1</b>	<b>Inadequate</b> <b>2</b>	<b>Adequate</b> <b>3</b>	<b>Very Adequate</b> <b>4</b>
C1.1	Class rooms	1	2	3	4
C1.2	Latrines/Toilets	1	2	3	4
C1.3	Libraries	1	2	3	4
C1.4	Laboratories	1	2	3	4
C1.5	Materials/Textbooks	1	2	3	4
C1.6	Offices	1	2	3	4
C1.7	Workshops	1	2	3	4
C1.8	Equipment	1	2	3	4

<b>Section D</b>	<b>Factors Affecting Resource Management</b>
------------------	--

**D1.** Please indicate the extent to which you agree or disagree with the items below.

The following are factors and challenges that may constrain/hamper effective management of educational resources. Please tick (✓) your opinion in each row as it relates to your school.

<b>Strongly Disagree</b> <b>SD (1)</b>	<b>Disagree</b> <b>D (2)</b>	<b>Agree</b> <b>A (3)</b>	<b>Strongly Agree</b> <b>SA (4)</b>
---	---------------------------------	------------------------------	--

<b>No.</b>	<b>Statements</b>	<b>SD</b>	<b>D</b>	<b>A</b>	<b>SA</b>
D1.1	Frequent changes in educational policies	1	2	3	4
D1.2	Personnel constraints in terms of employee attitude and shortage	1	2	3	4
D1.3	Poor maintenance culture for resources in the school	1	2	3	4
D1.4	Poor funding of schools	1	2	3	4
D1.5	Lack of support services on school based management	1	2	3	4
D1.6	Lack of guidelines/policy on how schools can engage in income generating activities	1	2	3	4
D1.7	Lack of sufficient inputs like instructional materials, physical structures	1	2	3	4
D1.8	Lack of appropriate methods and techniques that work well in the local context of the school	1	2	3	4

**D2.** The following are factors that may enable effective management of educational resources. Please tick (✓) your opinion in each row as it relates to your school.

<b>No.</b>	<b>Statements</b>	<b>SD</b>	<b>D</b>	<b>A</b>	<b>SA</b>
D2.1	Create an environment appropriate for learners and learning processes	1	2	3	4
D2.2	Enhance education quality for optimal productivity of schools	1	2	3	4
D2.3	Involve participation of parents and school committees in the school decision system regarding resources	1	2	3	4
D2.4	Allow for effective teaching and learning processes	1	2	3	4
D2.5	Establish policy based on fair resources funding	1	2	3	4

D2.6	Allow for efficient teaching and learning processes in schools	1	2	3	4
D2.7	Monitor school activities used for providing support for the improvement of facilities	1	2	3	4
D2.8	Ensure there is good planning of educational resources for operation by MoET	1	2	3	4
D2.9	Allow the local governing body to set additional aims and objectives for the school	1	2	3	4

<b>Section E</b>	<b>Sustainable Practices in Resource Generation and Management</b>
------------------	--

**E1.** Please indicate how successful your school has been so far in managing its resources.  
Please tick (✓) your opinion in each row.

<b>Not at all</b> <b>1</b>	<b>To a little extent</b> <b>2</b>	<b>Moderately Successful</b> <b>3</b>	<b>Very Successful</b> <b>4</b>
-------------------------------	---------------------------------------	--	------------------------------------

<b>No.</b>	<b>Statements</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
E1.1	Careful selection of materials and resources	1	2	3	4
E1.2	Formulation of plans for achieving objectives	1	2	3	4
E1.3	Categorising resources or facilities into departments	1	2	3	4
E1.4	Delegating resource jobs to committees	1	2	3	4
E1.5	Having proper facility inventories for resources	1	2	3	4
E1.6	Avoiding wastage of educational resources through proper maintenance processes	1	2	3	4
E1.7	Arranging proper space and storage of school resources	1	2	3	4
E1.8	Keeping periodical verification of stocks to ascertain the state and need of resources	1	2	3	4
E1.9	Employing new techniques in the management of school resources (Entrepreneurial, management by objective)	1	2	3	4



**E2.** Please indicate how successful your school has been so far in generating resources.

<b>Not at all</b>	<b>To a little extent</b>	<b>Moderately Successful</b>	<b>Very Successful</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

<b>No.</b>	<b>Statements</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
E2.1	Having a constant flow of funding from within the school	1	2	3	4
E2.2	Calling for quotations to compare rates and quality of resources	1	2	3	4
E2.3	Having a constant flow of funding from outside sources	1	2	3	4
E2.4	Forming Private, Public Partnerships for resource mobilisation strategies	1	2	3	4
E2.5	Inviting donors to support in school functions	1	2	3	4
E2.6	Conducting evaluations on funding and setting new targets for operation	1	2	3	4

**This is the end of the questionnaire**

**Thank you very much for your time**

### **APPENDIX 13: INTERVIEW SCHEDULE FOR SCHOOL PRINCIPALS**

Dear respondent the purpose of this interview schedule is to make a follow up on the questionnaire responses that need in depth discussion.

#### **GENERATING AND MANAGING RESOURCES:**

1. a) How does the school generate teaching and learning resources?
- b) How do you manage the available resources?
- c) How is the functionality state of the available resources?

#### **FACTORS AFFECTING GENERATING AND MANAGING RESOURCES**

2. a) What challenges and benefits does the school face in mobilising educational resources?
- b) What challenges and benefits does the school face in managing educational resources?
- c) What suggestions would you have regarding improving the various challenges and problems in resource generation and management)?

#### **PRACTICES FOR SUSTAINING EDUCATIONAL RESOURCES**

3. a) What policy would you suggest to govern the mobilisation of resources in your school?
- b) What system/structure would you suggest to govern the effective management of resources in your school?
- c) What strategy would you recommend for the sustenance of educational resources in schools in the long run?

**This is the end of the interview**

**Thank you very much for your time and cooperation!**

## APPENDIX 14: SSP DOCUMENT ANALYSIS SCHEDULE

TARGET DOCUMENT	AREAS OF FOCUS	RESEARCHER NOTES
SCHOOL STRATEGIC PLAN	<p>1. What are the <b>future plans</b> for the school in the short, medium and long term?</p> <ul style="list-style-type: none"> <li>• Vision</li> <li>• Mission</li> <li>• Objectives</li> <li>• Values</li> </ul>	
	<p>2. <b>How long</b> is the action/development plan for the school (3-5 years)</p>	
	<p>3. <b>Performance Evaluation</b></p> <ul style="list-style-type: none"> <li>• Achievements and</li> <li>• Failures of school goals and plans</li> </ul> <p><b>Resource mobilisation theme:</b></p> <ul style="list-style-type: none"> <li>• Does the strategy show any funding techniques?</li> <li>• Should be appealing to contributors mind and heart, and touchy</li> </ul>	
	<p><b>Control measures:</b></p> <p>Observe activity regarding educational resource maintenance plan for the school</p> <ul style="list-style-type: none"> <li>• Broken furniture</li> <li>• Damaged structures</li> <li>• Unrepaired toilets and</li> </ul>	

	<p>water pipes</p> <ul style="list-style-type: none"> <li>• Un-cleared grasses in sports field</li> </ul>	
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## APPENDIX 15: QUESTIONNAIRE FOR HODs OF SCHOOLS

This questionnaire seeks to gather information regarding the generation and management of educational resources in schools.

**Please complete all sections of the questionnaire.**

<b>Section A</b>	<b>Biographical Information</b>
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**A1. Gender/Sex:** Please tick (✓)

	<b>Response</b>
Male	1
Female	2

**A2. Experience in years as Head of Department:** Please tick (✓)

<b>Experience (years)</b>	<b>Response</b>
1 – 5	1
6 – 10	2
11 – 15	3
16 – 20	4
Above 20	5

**A3. Highest academic qualification:** Please tick (✓)

<b>Name of qualification</b>	<b>Response</b>
Certificate	1
Diploma	2
Bachelor's Degree	3
Honour's Degree	4
Master's Degree	5
Other (Specify):	6

**A5. Highest professional qualification:** Please tick (✓)

<b>Name of qualification</b>	<b>Response</b>
Certificate in Education	1
Post Graduate Certificate in Education	2
Diploma in Education	3
Post Graduate Diploma in Education	4
Bachelor of Education	5
Honour's Degree in Education	6
Masters Degree in Education	7
Other (Specify):	8

<b>Section B</b>	<b>Resource Allocation, Availability and Generation</b>
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**B1.** Please indicate the extent to which you agree or disagree with the items. The availability of the following types of resources can assist in the teaching and learning processes, and aid school performance. Please tick (✓) your opinion in each row.

<b>Strongly Disagree</b> <b>SD (1)</b>	<b>Disagree</b> <b>D (2)</b>	<b>Agree</b> <b>A (3)</b>	<b>Strongly Agree</b> <b>SA (4)</b>
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<b>No.</b>	<b>Resources</b>	<b>SD</b>	<b>D</b>	<b>A</b>	<b>SA</b>
B1.1	Science laboratory(s)	1	2	3	4
B1.2	Cookery/Home Economics laboratory(s)	1	2	3	4
B1.3	Agriculture laboratory(s)	1	2	3	4
B1.4	Computer laboratory(s)	1	2	3	4
B1.6	Computers	1	2	3	4
B1.7	Classrooms/teaching rooms	1	2	3	4
B1.9	Design and Technology workshop(s)	1	2	3	4
B1.10	Sports field(s) activities	1	2	3	4
B1.11	<b>Store rooms in:</b> Kitchen(s)	1	2	3	4
	Workshop(s)	1	2	3	4
	Laboratory(s)	1	2	3	4

No.	Resources	SD	D	A	SA
B1.12	Number of subjects offered	1	2	3	4
B1.13	Furniture: Tables	1	2	3	4
	Desks	1	2	3	4
	Chairs	1	2	3	4
B1.14	Telecommunication facilities	1	2	3	4

**B2.** State the extent to which you agree or disagree with the following statements as applied to your school in generating or mobilising educational resources. Please tick (✓) your opinion in each row.

No.	Statement	SD	D	A	SA
B2.1	The school gets proceeds from the garden to boost its coffers	1	2	3	4
B2.2	The school provides for sporting activities and gets proceeds for its projects	1	2	3	4
B2.3	The school sometimes stages plays to raise funds	1	2	3	4
B2.4	The parent-teacher association contributes finances to the school for operations	1	2	3	4
B2.5	The school partners with suppliers to offer service support for the school activities	1	2	3	4
B2.6	The school gets financial support from business people for its resources	1	2	3	4
B2.7	The school gets financial support from school alumni/ graduates association	1	2	3	4
B2.8	The school receives financial support from charitable organisations/philanthropy	1	2	3	4
B2.9	The school gets financial support from government for its operations	1	2	3	4
B2.10	The school rents out facilities to get income	1	2	3	4

<b>Section C:</b>	<b>Educational Resource Management</b>
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**C1.** How strongly do you agree or disagree with the following statements regarding the effective management of educational resources in the school for your department. Please tick (✓) your opinion in each row.

<b>Strongly Disagree</b> <b>SD (1)</b>	<b>Disagree</b> <b>D (2)</b>	<b>Agree</b> <b>A (3)</b>	<b>Strongly Agree</b> <b>SA (4)</b>
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<b>No.</b>	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>A</b>	<b>SA</b>
C1.1	The monitoring of teaching and learning material resources is done regularly	1	2	3	4
C1.2	Premises and buildings are refurbished every five years	1	2	3	4
C1.3	There is regular monitoring of all assets and resources for the school	1	2	3	4
C1.4	There is careful management of textbooks in my department	1	2	3	4
C1.5	School laboratories are well equipped	1	2	3	4
C1.6	School workshops are well equipped	1	2	3	4
C1.7	All recommended text books for teaching and learning in my department are available	1	2	3	4
C1.8	My department improvises for educational resources with available materials from the local environment	1	2	3	4
C1.9	The school has enough teaching/learning materials for effective teaching and learning	1	2	3	4
C1.10	The school has a system which evaluates the long-term effect/outcome of resources against the achievement of the planned objectives	1	2	3	4
C1.11	There is a proper system in place when distributing text books to learners	1	2	3	4



<b>Section D</b>	<b>Factors and Challenges in Resource Generation and Management</b>
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**D1.** Please indicate the extent to which you agree or disagree with the items. The following are factors and challenges that may constrain/hamper effective management of educational resources in schools. Please tick (✓) your opinion in each row.

<b>Strongly Disagree</b> <b>SD (1)</b>	<b>Disagree</b> <b>D (2)</b>	<b>Agree</b> <b>A (3)</b>	<b>Strongly Agree</b> <b>SA (4)</b>
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<b>No.</b>	<b>Statements</b>	<b>SD</b>	<b>D</b>	<b>A</b>	<b>SA</b>
D1.1	Frequent changes in educational policies	1	2	3	4
D1.2	Personnel constraints	1	2	3	4
D1.3	Poor maintenance culture and practice for resource management	1	2	3	4
D1.4	Poor funding of schools	1	2	3	4
D1.5	Lack of training and support services on school based management	1	2	3	4
D1.6	Lack of guidelines/policy on how schools can engage in resource generating activities	1	2	3	4
D1.7	Lack of sufficient inputs like instructional materials, physical structures	1	2	3	4
D1.8	Lack of appropriate methods and techniques that work well in the local context of the school	1	2	3	4

**D2.** Please indicate the extent to which you agree or disagree with the statements below. The following statements may enable effective management of resources in schools. Please tick (✓) your opinion in each row as it relates to your school.

No.	Statements	SD	D	A	SA
D2.1	Create an environment appropriate for learners and learning processes	1	2	3	4
D2.2	Enhance quality education and optimal productivity in schools	1	2	3	4
D2.3	Participation of parents and school committees in the school decision system regarding resources is appropriate	1	2	3	4
D2.4	Allow for effective and efficient teaching and learning in schools	1	2	3	4
D2.5	Policy and strategy should be directed on equitable/fair resource maintenance	1	2	3	4
D2.6	Transparency of information and accountability by schools should be concrete/substantial	1	2	3	4
D2.7	Monitoring of school activities should be used for providing support for improvement of facilities	1	2	3	4
D2.8	Ensure effectiveness and efficiency of school operation by Ministry of Education and Training (MOET)	1	2	3	4

<b>Section E</b>	<b>Sustainable Practices in Resource Generation and Management</b>
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**E1.** Please indicate the extent to which you agree or disagree with the items as applied to your department/school. The following are practices and strategies for sustainable resource generation and management in schools. Please tick (✓) your opinion in each row.

<b>Strongly Disagree</b> <b>SD (1)</b>	<b>Disagree</b> <b>D (2)</b>	<b>Agree</b> <b>A (3)</b>	<b>Strongly Agree</b> <b>SA (4)</b>
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No.	Statements	SD	D	A	SA
E1.1	Careful selection of school materials and facilities	1	2	3	4
E1.2	Formulation of plans for achieving school objectives	1	2	3	4
E1.3	Categorising resources or facilities into departments	1	2	3	4
E1.4	Scout for quotations to compare rates and quality of resources	1	2	3	4

E1.5	Have proper facility inventory (listing, recording) to ensure efficient operation for the department	1	2	3	4
E1.6	Avoid wastage and damage of educational resources through the use of proper maintenance processes	1	2	3	4
E1.7	Arrange proper space and storage of school resources	1	2	3	4
E1.8	Keep periodical verification of stocks to ascertain the condition and need of resources	1	2	3	4
E1.9	Have constant flow of funding from within and outside school sources	1	2	3	4

**This is the end of the questionnaire**  
**Thank you very much for your time!**

## **APPENDIX 16: FOCUS GROUP INTERVIEW SCHEDULE FOR HODs**

### **GENERATING AND MANAGING RESOURCES:**

- 1. What is the broad picture that you have about educational resources in your school? Your management function as HOD.**
  - a) How does your department mobilise educational resources?
  - b) Do you think the school has enough resources (physical, material) for efficient operation in your department? Please elaborate.
  - c) How do you manage/maintain/repair the available resources in your department?

### **CHALLENGES AND FACTORS AFFECTING GENERATING AND MANAGING RESOURCES**

- 2. What is your role as a manager in your department, in the idea of resources mobilisation and management?**
  - a) What challenges do you face in generating, maintaining and managing resources in your school?
  - b) Please comment on factors that affect resource availability in your school? Include positive and negative factors.

### **PRACTICES FOR SUSTAINING EDUCATIONAL RESOURCES**

- 3. How sustainable is education in the way things are happening today in terms of educational resources?**
  - a) What strategy/policy would you suggest to govern the mobilisation of resources in schools?
  - b) What system/structure would you suggest to govern the management of resources in schools?
  - c) What recommendation do you have for the sustenance or maintenance of resources in schools?

**This is the end of the interview**

**Thank you very much for your time and cooperation!**

# APPENDIX 17: STOCK BOOK DOCUMENT ANALYSIS SCHEDULE

TARGET DOCUMENT	AREAS OF FOCUS	RESEARCHER NOTES
STOCK BOOKS FOR DEPARTMENTS	1. Observe any possible methods of generating and managing resources, reflected in the stock book?	
	2. What management skill/approach is reflected in the books for generating and managing resources? E.g. any specification on why a particular resource was offered to the school.	
	3. Do the books reflect any challenges/factors affecting resource generation and management?	
	4. From practice, is there any evidence for sustaining the educational resources? Who monitors, when (time) and how to maintain, how long a resource lasts.	

**APPENDIX 18: HTs INTERVIEW TRANSCRIPT RESPONSES**  
**MANGO SCHOOL**

<b>GENERATING AND MANAGING RESOURCES</b>	
<b>QUESTION 1</b>	<b>RESPONSES</b>
a) How does the school generate/acquire teaching and learning resources?	<ul style="list-style-type: none"> <li>We acquire resources through parents' school fees payments.</li> </ul>
b) How do you manage the available resources?	<ul style="list-style-type: none"> <li>We use the rental system where books are kept in the school book storeroom. Text books are numbered and coded, given to learners at the beginning of the year and submitted back at the end of the year</li> </ul>
c) How is the functionality state of the available resources?	<ul style="list-style-type: none"> <li>Some resources are still missing in my school for example, the measure for intensity of the sun, how hot the sun is, how quickly water evaporates, are resources needed for improvement purposes.</li> </ul>
<b>FACTORS AFFECTING GENERATING AND MANAGING RESOURCES</b>	
<b>QUESTION 2</b>	<b>RESPONSES</b>
a) What challenges and benefits does the school face in mobilising and managing educational resources?	<p><b>Benefits</b></p> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>Parents payments for school fees are not enough thus resources are also not enough</li> <li>Textbooks get lost through theft. Learners decide to keep their textbooks at home to preserve them from being stolen and this disturbs the teaching and learning process.</li> </ul>
b) What suggestions would you have regarding improving the various challenges and problems in resource generation and management)?	<ul style="list-style-type: none"> <li>Government should assist in ensuring that every learner has an individual text book</li> </ul>
<b>PRACTICES FOR SUSTAINING EDUCATIONAL RESOURCES</b>	

QUESTION 3	RESPONSES
a) What policy would you suggest to govern the mobilisation of resources in your school?	<ul style="list-style-type: none"> <li>• There is need to have a policy that can govern everything in the school, that is, furniture, equipment, text book rentals etc. Implementing what is in the policies can help in order to sustain resources in schools. This is to avoid solving problems impromptu.</li> <li>• Textbook policy that each learner has a text book through out their learning period</li> </ul>
b) What strategy would you recommend for the sustenance of educational resources in schools in the long run?	<ul style="list-style-type: none"> <li>• Create a data base for funders</li> <li>• Have a stable source of funding for efficient teaching and learning</li> <li>• Develop a rapport and friendship with suppliers, communities, NGOs and companies. Some companies can pledge to replace outdated resources in the schools. They can mind the compatibility of the equipment and can give new and current information for teaching and learning, like ICT equipment.</li> </ul>

*The Strategic plan is based on the academic performance of the school other than resources*

## MASIKO SCHOOL

<b>GENERATING AND MANAGING EDUCATIONAL RESOURCES</b>	
<b>QUESTION 1</b>	<b>RESPONSES</b>
a) How does the school generate teaching and learning resources?	<ul style="list-style-type: none"> <li>• Requisition by HODs then pay through subject fees and school budget</li> </ul>
b) How do you manage the available resources?	<ul style="list-style-type: none"> <li>• Keep records of resources in stock books</li> <li>• Store resources in cupboards and storerooms safely in departments</li> </ul>
c) How is the functionality state of the available resources?	<ul style="list-style-type: none"> <li>• Resources are there expect that they are old and require repairs and renovation because the school is very old. Government takes a long time before attending to the resources, some are even outdated.</li> </ul>
<b>FACTORS AFFECTING RESOURCE GENERATION AND MANAGEMENT</b>	
<b>QUESTION 2</b>	<b>RESPONSES</b>
a) What challenges and benefits does the school face in mobilising and managing educational resources?	<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>• The environment in terms of getting best teachers and having an extended resource base for school functioning and performance improves because the school has the resources and is able to liaise with the world outside.</li> <li>• Attract more learners, adequate space and furnishing of the school</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Policies do not work well for government schools</li> <li>• The school has a lot of obsolete resources and it becomes difficult for the school operation</li> <li>• Resources do not provide up to date</li> </ul>
b) What suggestions would you have regarding improving the various challenges and problems in resource generation and management)?	<ul style="list-style-type: none"> <li>• Improve supervision of resources</li> </ul>



## SUSTAINABLE PRACTICES IN RESOURCE MOBILISATION AND MANAGEMENT

QUESTION 3	RESPONSES
a) What policy would you suggest to govern the mobilisation of resources in your school?	<ul style="list-style-type: none"> <li>• Resource mobilisation and maintenance Policy</li> <li>• Suggest lessons on taking care of resources</li> </ul>
b) What strategy would you recommend for the sustenance of educational resources in schools in the long run?	<ul style="list-style-type: none"> <li>• Empowerment on resource mobilisation and management through workshops for administrators and stakeholders.</li> <li>• School resource management is a sensitive issue, some school principals have lost jobs on the issue of finances, so it is important to educate those involved with school resources on skills for the proper management of such.</li> <li>• There is no policy regarding the issues of resource generation and management in schools. Formulate policies to govern school operation concerning its furniture, equipment, textbooks etc and practice what is in the policy</li> <li>• Create a data base for funders: Bringing all stakeholders on board with information flow on how to take care of the resources (learners, parents, and teachers) and what is expected of each stakeholder could help schools care for their resources.</li> <li>• Invest on legal fundraising strategies</li> <li>• Bring all stakeholders on board with information on how to take care of resources and what is expected of each of them</li> <li>• It would be good to appoint resources to wardens like clerical officers and set committees who would ensure their sustainability and care.</li> </ul>

## MIKO SCHOOL

GENERATING AND MANAGING RESOURCES	
QUESTION 1	RESPONSES
a) How does the school generate teaching and learning resources?	<ul style="list-style-type: none"> <li>• From school fees</li> <li>• HODs requisition teaching and learning materials a year before. We include material resources needed by the department in the school budget by giving three quotations and then the office of the HT purchases the materials needed through subject fees.</li> </ul>
b) How do you manage the available resources?	<ul style="list-style-type: none"> <li>• The teaching and learning materials are under the jurisdiction of HODs that observe and report breakages. They keep stock books for this.</li> <li>• The school supplies text books to the learners at a fee</li> </ul>
c) How is the functionality state of the available resources?	<ul style="list-style-type: none"> <li>• For purposes of basic resources, that is okay, but not really in the standard we are expecting resources to be.</li> </ul>
FACTORS AFFECTING GENERATING AND MANAGING EDUCATIONAL RESOURCES	
QUESTION 2	RESPONSES
a) What challenges and benefits does the school face in mobilising and managing educational resources?	<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>• Easy learning and teaching when learning by seeing, thus improving school performance</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Shortage of storage facilities in the school</li> <li>• Financial resources are lacking a lot because OVCs need their school fees to be paid for by the government. These payments are delayed and the whole teaching and learning processes are affected because nothing can happen in the school without funds.</li> <li>• Resources have a life span and finally should be replaced, but since education is already expensive it becomes very difficult to meet all the school needs</li> </ul>

	<p>on resources. Education and all other things are advancing and getting expensive by the day, yet if resources management is not improved in any way and it is very difficult to use the same resources in the future like textbooks that easily deteriorate, so the near future in learning looks threatened.</p> <ul style="list-style-type: none"> <li>• The income received for running the school is far less than the expenditure required. As a result, the school's activities do not run smoothly because no financial plans are properly in place. This results in my school not fulfilling its role of providing quality and equal education to learners from poverty stricken homes</li> </ul>
<b>b)</b> What suggestions would you have regarding improving the various challenges and problems in resource generation and management	<ul style="list-style-type: none"> <li>• Clean out the storages and throw away the old stock e.g. typewriters, old computer parts, printers, old registers and scheme books.</li> <li>• Put in more fixtures to store resources</li> </ul>
<b>PRACTICES FOR SUSTAINING EDUCATIONAL RESOURCES</b>	
<b>QUESTION 3</b>	<b>RESPONSES</b>
<b>a)</b> What policy would you suggest to govern the mobilisation of resources in your school?	<ul style="list-style-type: none"> <li>• Schools should have a resource mobilisation policy, text book policy, maintenance and management policy. Have a resource management committee to help stakeholders mind the security of resources in the schools.</li> </ul>
<b>b)</b> What strategies would you recommend for the sustenance of educational resources in schools in the long run?	<ul style="list-style-type: none"> <li>• Give incentive to HTs, HODs, teachers and learners (stakeholders) for taking good care the resources and spending lucratively on resources in that department. This could increase the life span and security of resources.</li> <li>• Invest on fundraising</li> <li>• The use of ICT can help reduce the wastage of resources because those in charge of the resources</li> </ul>

	<p>would have to account on missing tools.</p> <ul style="list-style-type: none"> <li>• Buy technological instruments/materials as a cluster to help curb wastages. When some of the resources are outdated or redundant they can be replaced easily than a huge loss falling on one school.</li> <li>• Schools can easily get funders and suppliers to buy or construct facilities for schools together e.g. weather stations</li> <li>• Bring all stakeholders on board with information flow on how to take care of the resources (learners, parents, and teachers) and what is expected of each stakeholder.</li> <li>• Delegation of duties is part of the management functions of school administration. So resources should be appointed to resource wardens or clerical officers who should inform about need for maintenance.</li> </ul>
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## MALTA SCHOOL

<b>GENERATING AND MANAGING RESOURCES</b>	
<b>QUESTION 1</b>	<b>RESPONSES</b>
a) How does the school generate teaching and learning resources?	<ul style="list-style-type: none"> <li>• From school fees</li> <li>• HODs requisition teaching and learning materials a year before. They are included in the budget then give three quotations and then the office purchase the materials</li> </ul>
b) How do you manage the available resources?	<ul style="list-style-type: none"> <li>• The teaching and learning materials are under the jurisdiction of HODs that observe and report breakages. They keep stock books for this. The school supplies text books to the learners at a fee. We keep records of resources in stock books. Resources are stored in cupboards and storerooms safely in the departments.</li> <li>• The school supplies text books to the learners at a fee</li> </ul>
c) How is the functionality state of the available resources?	<ul style="list-style-type: none"> <li>• This is in relation to the fact that the available resources are too old and need repairs, replacement and maintenance.</li> </ul>
<b>FACTORS AFFECTING GENERATING AND MANAGING EDUCATIONAL RESOURCES</b>	
<b>QUESTION 2</b>	<b>RESPONSES</b>
a) What challenges and benefits does the school face in mobilising and managing educational resources?	<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>• Easy learning and teaching when learning by seeing, thus improving school performance</li> </ul> <p><b>Challenges</b></p> <p>This cause more resource shortages. There is shortage of storage facilities in my school. Some of the storage facilities are filled with old materials that are no longer in use and would never be used any more but we can't throw them away because they are for government (For example, old computers, refrigerators and old</p>

	<p>furniture).</p> <ul style="list-style-type: none"> <li>Storage facilities are filled with old materials that are no more in use and will never be used.</li> </ul>
<p><b>b)</b> What suggestions would you have regarding improving the various challenges and problems in resource generation and management</p>	<ul style="list-style-type: none"> <li>Clean out the storages and throw away the old stock e.g. typewriters, old computer parts, printers, old registers and scheme books.</li> <li>Put in more fixtures to store resources</li> </ul>
<p><b>PRACTICES FOR SUSTAINING EDUCATIONAL RESOURCES</b></p>	
<p><b>QUESTION 3</b></p>	<p><b>RESPONSES</b></p>
<p><b>a)</b> What policy would you suggest to govern the mobilisation of resources in your school?</p>	<ul style="list-style-type: none"> <li>According to clusters schools can be able to purchase resources and put them into one central office, especially the expensive ones; this can benefit schools a lot. When a school cannot afford buying resources, they can use those materials from the central office jointly using chances. This can bare positive results in schools performance as well.</li> <li>Have a resource mobilisation and maintenance policy to have an office for school clusters to purchase resources especially expensive ones to go into one office. Schools can use those materials jointly</li> </ul>
<p><b>b)</b> What strategies would you recommend for the sustenance of educational resources in schools in the long run?</p>	<ul style="list-style-type: none"> <li>Create a data base for funders, having a stable source of funding for efficient teaching and learning, support of educational resources and investing on legal fundraising strategies for the generation of educational resources</li> <li>Assign resources to wardens. The resource wardens or committees would have their own principles of operation and this can increase the life span of educational facilities in our schools.</li> <li>Buy technological instruments/materials as a cluster to help curb wastages. When some of the resources are outdated or redundant they can be replaced easily</li> </ul>

	<p>than a huge loss falling on one school.</p> <ul style="list-style-type: none"> <li>• Schools can easily get funders and suppliers to buy or construct facilities for schools together e.g. weather stations</li> <li>• Bring all stakeholders on board with information flow on how to take care of the resources (learners, parents, and teachers) and what is expected of each stakeholder.</li> </ul>
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## MASS SCHOOL

GENERATING AND MANAGING EDUCATIONAL RESOURCES	
QUESTION 1	RESPONSES
a) How does the school generate teaching and learning resources?	<ul style="list-style-type: none"> <li>• Parents pay, the school makes a budget for the school requirements in furniture, equipment</li> <li>• We sometimes but rarely, get donations from government like computers and printers.</li> </ul>
b) How do you manage the available resources?	<ul style="list-style-type: none"> <li>• After the principal, it is the HODs and teachers that take care of the resources in laboratories and classrooms</li> <li>• They do stock taking through the stock books</li> </ul>
c) How is the functionality state of the available resources?	<ul style="list-style-type: none"> <li>• A lot more of the resources are still missing in my school, for example, as technology advances, there is need to get more of the e-learning resources to deliver up to the expected standards. There is room to improve the standard of resources provided because resources are used to provide adequate, up-to-date educational and social services noted another participant.</li> </ul>
CHALLENGES AND FACTORS IN GENERATING AND MANAGING RESOURCES	
QUESTION 2	RESPONSES
a) What challenges and benefits does the school face in mobilising and managing educational resources?	<p><b>Benefits</b></p> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Parents are the highest payers of resources so money may lack; thus providing for basics only</li> <li>• no subsidies and donation for the practical subjects</li> <li>• There are no additional subsidies and donations for the practical subjects; this proves that schools lack financial resources.</li> <li>• No adequate support from government to help parents</li> </ul>



	<ul style="list-style-type: none"> <li>• Negligence in resource management by those assigned</li> </ul>
<b>b)</b> What suggestions would you have regarding improving the various challenges and problems in resource generation and management)?	<ul style="list-style-type: none"> <li>• Support from government to help encourage parents to pay</li> <li>• Have support from funders to offer structures and equipment, to renovate the school</li> </ul>
<b>PRACTICES FOR SUSTAINING EDUCATIONAL RESOURCES</b>	
<b>QUESTION 3</b>	<b>RESPONSES</b>
<b>a)</b> What policy would you suggest to govern the mobilisation of resources in your school?	<ul style="list-style-type: none"> <li>• Resource mobilisation and management policy</li> </ul>
<b>b)</b> What strategy would you recommend for the sustenance of educational resources in schools in the long run?	<ul style="list-style-type: none"> <li>• Bring all stakeholders on board and work hand in hand with them on the care of resources and what is expected of each of them.</li> <li>• It is important to remind learners and staff about the need to save resources for example, to attach notices to switches and exit points to remind users to turn off lights and other appliances</li> <li>• Create a database for funders. A school can easily get funders and suppliers to buy or construct facilities for the schools together, for example, weather stations, build new structures</li> <li>• Workshop school administrators on new curriculum changes including technology and equipment management. Workshops should include empowering us and other stakeholders involved in resource mobilisation and management on skills for acquiring the resources</li> <li>• Develop a rapport, friendships and have partnerships</li> </ul>

	<p>with suppliers, communities, NGOs and companies for support of educational resources</p> <ul style="list-style-type: none"> <li>• Buying technological materials as a cluster can help curb wastages when it comes to resource planning. When some of the resources are outdated or redundant they can be replaced easily than a huge loss falling on one school.</li> </ul>
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## MEGA SCHOOL

GENERATING AND MANAGING EDUCATIONAL RESOURCES	
QUESTION 1	RESPONSES
a) How does the school generate teaching and learning resources?	<ul style="list-style-type: none"> <li>Requisition by HODs then pay through subject fees and school budget</li> </ul>
b) How do you manage the available resources?	<ul style="list-style-type: none"> <li>After the resources are delivered to the school, and the HT has signed for them, then it is the HODs and teachers that take care of the resources in laboratories and classrooms. They do stock taking through the stock books</li> <li>Keep records of resources in stock books</li> <li>Store resources in cupboards and storerooms safely in departments</li> </ul>
c) How is the functionality state of the available resources?	<ul style="list-style-type: none"> <li>We are some how happy about the resources we have in my school</li> </ul>
FACTORS AFFECTING RESOURCE GENERATION AND MANAGEMENT	
QUESTION 2	RESPONSES
a) What challenges and benefits does the school face in mobilising and managing educational resources?	<p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>Improvement in school performance and environment in terms of best teachers with extended resource base and availability of resources</li> <li>Attract more learners, adequate space and furnishing of the school</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>There is no policy regarding the issues of resource generation and management in schools. We are just told that government schools are not allowed to do certain things but there is no written documentation governing this. In other words, policies do not work well for us government schools</li> <li>Resources used tend to be expensive for us as a</li> </ul>

	<p>school to buy. It also becomes very difficult to convince those in authority to increase school fees payments to meet the costs of the resources. Therefore, unavailability of the resources leads to failure of the administration to purchase tools due to insufficient funds.</p> <ul style="list-style-type: none"> <li>• Resources do not provide up to date</li> <li>• Workshop HODs as managers as well on how to take good care of the resources, servicing maintaining and repairing them, so that they can teach teachers and learners and then be able to achieve school goals.</li> </ul>
b) What suggestions would you have regarding improving the various challenges and problems in resource generation and management)?	<ul style="list-style-type: none"> <li>• Improve supervision of resources</li> </ul>
<b>SUSTAINABLE PRACTICES IN RESOURCE MOBILISATION AND MANAGEMENT</b>	
<b>QUESTION 3</b>	<b>RESPONSES</b>
a) What policy would you suggest to govern the mobilisation of resources in your school?	<ul style="list-style-type: none"> <li>• Resource mobilisation and maintenance Policy</li> <li>• Suggest lessons on taking care of resources</li> </ul>
b) What strategy would you recommend for the sustenance of educational resources in schools in the long run?	<ul style="list-style-type: none"> <li>• Empowerment on resource mobilisation and management through workshops for administrators and stakeholders. School resource management is a sensitive issue and some have lost jobs so it is important to educate those involved with school resources.</li> <li>• Formulate policies to govern school operation concerning its furniture, equipment, textbooks etc and practice what is in the policy. There is a great</li> </ul>

	<p>need to have a text book policy to regulate the use of books in schools because there is none at the moment. The absence of such a policy leads to irregularities in the school planning, control and operation. Policy must be put into practice than to leave it on paper only</p> <ul style="list-style-type: none"> <li>• Resources have a life span and finally should be replaced but since education is already expensive it becomes very difficult to meet all the school needs on resources. Education and all other things are advancing and getting expensive by the day, yet if resources management is not improved in any way and it is very difficult to use the same resources in the future like textbooks that easily deteriorate, so the near future in learning looks threatened</li> <li>• Bring all stakeholders on board with information on how to take care of resources and what is expected of each of them</li> <li>• Delegation of duties is part of the management functions of school administration. So resources should be appointed to resource wardens or clerical officers who should inform about need for maintenance.</li> </ul>
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## APPENDIX 19: HODs FGI TRANSCRIPT RESPONSES

### MASS FGI

QUESTION 1	RESPONSE	
<b>MOBILISING AND MANAGING EDUCATIONAL RESOURCES</b>		
a) How does your department mobilise/generate teaching and learning resources?	<ul style="list-style-type: none"> <li>• use subject fee</li> <li>• we requisition money from the office</li> <li>• we requisition money from the office</li> <li>• we requisition money from the office and use the subject fee as well</li> <li>• we request payment of ordered items from the office</li> </ul>	5 3 4 2 1
b) How do you manage/maintain the available resources in your department?	<ul style="list-style-type: none"> <li>• we use a stock book and cupboards to keep our resources</li> <li>• we keep records and store rooms</li> <li>• we keep records of our materials</li> <li>• we use a stock book</li> <li>• we keep records in our stock book</li> </ul>	1 2 4 3 5
<b>FACTORS AFFECTING RESOURCE GENERATION AND MANAGEMENT</b>		
QUESTION 2	RESPONSE	
a) What challenges and benefits do you experience in generating and managing educational resources for your department?	<b>Benefits:</b> <ul style="list-style-type: none"> <li>• good performance of the department</li> <li>• improvement in the school environment and extended resource base.</li> <li>• Teaching and learning continues smoothly; learners work independently at home with their resources especially text books. It becomes easy to tell which educational resources are available like furniture and which resources are lacking through the proper organisation of resources. This brings about some benefits and enables smooth</li> </ul>	5, 3,4 1 3

	<p>operation.</p> <ul style="list-style-type: none"> <li>• school improvement and the environment; attraction of more learners to the school</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• policy issues about books and their changes</li> <li>• the deterioration in the condition of facilities like furniture; resources not providing up to date educational and social services</li> <li>• The stealing of resources like small items happens a lot in our school</li> </ul>	<p>2</p> <p>5, 4, 2</p> <p>1, 2,3</p> <p>4</p>
b) What suggestions would you have regarding improving the various challenges and problems in resource generation and management in your department?	<ul style="list-style-type: none"> <li>• do close monitoring of resources</li> <li>• ensure adequate management of resources with regard to documentation, planning, implementation and evaluation of resources and facilities; convince authorities about need of proper management of resources</li> <li>• close monitoring of resources; suggest lessons on taking care of the resources</li> </ul>	<p>1, 4,3</p> <p>2</p> <p>5</p>
<b>PRACTICES FOR SUSTAINING EDUCATIONALS RESOURCES</b>		
<b>QUESTION 3</b>	<b>RESPONSE</b>	
a) What structure or policy would you suggest to govern mobilisation and effective management of resources in your department?	<ul style="list-style-type: none"> <li>• servicing and repairing of school facilities; have a resource mobilisation policy</li> <li>• have a resource mobilisation policy; use ICT equipment to check and manage inventories</li> <li>• have a resource mobilisation policy; use ICT equipment to check and manage inventory</li> <li>• apply a green purchasing policy; mind the rate at which needs and requirements of resources change</li> <li>• use green purchasing policy of resources;</li> </ul>	<p>5</p> <p>3</p> <p>4</p> <p>2</p> <p>1</p>

	mind the security of resources	
b) What practices would you recommend for the sustenance or maintenance of educational resources in your department for future?	<ul style="list-style-type: none"> <li>ensure the good maintenance of resources to promote the aims of education; consider engaging all stakeholders involved regarding educational resources</li> </ul>	2
	<ul style="list-style-type: none"> <li>ensure the good maintenance of resources to promote the aims of education</li> </ul>	1
	<ul style="list-style-type: none"> <li>conduct routine checks on unnecessary use of educational resources</li> </ul>	4
	<ul style="list-style-type: none"> <li>ensure good maintenance of resources to promote the aims of education; monitor the usage of resources like electricity, water, stationery; remind learners and staff on the need to save resources; consider engaging all stakeholders involved regarding educational resources</li> </ul>	5
	<ul style="list-style-type: none"> <li>We should be involved in the school budgeting for our departments so that we can know the state of the school coffers to avoid demanding more resources where there is actually no money, that is, mind the rate at which needs and requirements of resources occur.</li> </ul>	3



# MALTA FGI

GENERATING AND MANAGING EDUCATIONAL RESOURCES		
QUESTION 1	RESPONSE	
(a) How does the school generate teaching and learning resources for your department?	• Fee per subject	6
	• Some are perishable and affordable like in Consumer Science; large items are decided upon by the schools; report to regional inspector and moves on to Senior Inspector who then provide some of the big items like refrigerators for practical's	4
	• Social department buys after a year or two from subject fees	5
	• Commercial/Business department writes a requisition at the end of the year to ask for text books. We keep records of all resources/facilities in our department through the stock book.	3
(b) How do you manage/maintain the available resources in your department?	• we teach learners how to use and care for the resources like the refrigerators from the syllabus; repairs are reported to the administration and they hire a company from outside that deals with maintenance to repair; some are kept in the stores department in Matsapha, that is, those that are not repairable, to be accounted for before government on what happened to the items	4
	• we have instruments like weather station which has a fixed period of time after which they are disposed and replaced	5
	• textbooks are managed by stock book where we record the number of books issued to each teacher, number of teachers. Check at the end of the year if they are all in then submit to the principal	3
FACTORS AFFECTING GENERATING AND MANAGING		

EDUCATIONAL RESOURCES		
QUESTION 2	RESPONSE	
<p>(a) What challenges and benefits do you experience in generating and managing educational resources for your department?</p>	<p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>Some of the big items are expensive to buy so replacing them takes a very long time thus causing challenges in the teaching and learning process because they need a lot of money thus makes it a challenge to work without such resources. It depends on the school budget if there is an allocation for that item, if not it takes a very long time to replace; stealing of resources like small items happen. No time to check the resources available after every practical lesson due to time constraints so it becomes difficult to trace the lost resources;</li> <li>Challenge of storage of the resources exists. There are no enough storerooms to keep material resources such as the text books in use thus vulnerable to theft.</li> </ul>	4
	<ul style="list-style-type: none"> <li>learners like touching of resources and there is a challenge that they like to run carrying them, which they can fall and brake them; learners need to be pushed to read the weather and it becomes a challenge to remind them on a daily basis</li> </ul>	5
	<p><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>There is ease of teaching with resources available and understanding of concepts as learners see the items you are talking about. Performance of the school improves and we attract more learners; We are able to replace perishable items yearly thus we ensure good maintenance and management, we see what is missing</li> </ul>	4

	<ul style="list-style-type: none"> <li>Experiencing the touch of the resources makes learning last in the learners minds</li> </ul>	5
(b) What suggestions would you have regarding improving the various challenges/problems in resource generation and management	<ul style="list-style-type: none"> <li>Budget earlier for the resources, ensure financing that is, arrange funding routes; Fully furnishing of the laboratories per departments for a successful introduction of the subject, that is ensure adequate management with regard to documentation, planning, implementation and evaluation of resources; books are rented out to learners but they are not of good quality such that they do not last. Rent out the books for a period of three years then replace them. Take proper care of the books like to charge the learner to replace it if lost.</li> </ul>	4
	<ul style="list-style-type: none"> <li>there is no way to observe the condition of the books as issued to learners, so it is better to have proper records of the books. That is, ensure adequate management with regard to documentation, planning, implementation and evaluation of resources; expensive books are not well kept in the hands of the learners yet they are scarce. Learners must be made aware that they have to take good care of the resources in their care, if not there are serious consequences that will follow. Books are not well taken care of the textbooks within the first term.</li> </ul>	3
	<ul style="list-style-type: none"> <li>have a text book policy because there is none at the moment</li> </ul>	7
	<ul style="list-style-type: none"> <li>Weather station in controlled so learners are told not to disturb, rain gauge is made up of copper thus safely kept. Learners are warned that they should not play next to these delegate resources.</li> </ul>	5
<b>PRACTICES FOR SUSTAINING EDUCATIONAL RESOURCES</b>		

QUESTION 3	RESPONSE	
<p><b>(a)</b> How resourceful is your department in terms of furniture, equipment, teaching/learning materials? Does your department have resources for present and future?</p>	<ul style="list-style-type: none"> <li>Resources are never enough; some are still missing in my department e.g. the measure for intensity of the sun, how hot the sun is how quickly water evaporates, needed for improvement purposes.</li> </ul>	<b>05</b>
	<ul style="list-style-type: none"> <li>a lot of the resources are still missing, as technology advances, we still have to get more of the e-learning resources to deliver up to the expected standards.</li> </ul>	<b>04</b>
	<ul style="list-style-type: none"> <li>There is room to improve the standard of resources provided because resources are used to provide adequate, up-to-date educational and social services.</li> </ul>	<b>07</b>
	<ul style="list-style-type: none"> <li>For purposes of basic resources, they are enough, but not really in the standard we are expecting resources to be.</li> </ul>	<b>03</b>
<p><b>(b)</b> What approaches or strategy can be used to manage educational resources effectively?</p>	<ul style="list-style-type: none"> <li>many stakeholders are involved here (parents, learners, principals) so let them all participate; HODs should be involved in budgeting for their departments to know the state of the school coffers to avoid demanding more resources where there is actually no money, that is, mind the rate at which needs and requirements of resources occur; therefore careful management of resources can be done by conscientising all the stake holders involved, learners and staff on the need to save resources.</li> </ul>	<b>03</b>
	<ul style="list-style-type: none"> <li>Give incentive to HODs, learners, teachers for taking good care the resources and spending less on funds for that department. Mind the security of resources; Workshop the HODs as managers on how to take care of the resources so as to teach the</li> </ul>	<b>04</b>

	learners as well and achieve school goals. How resources are looked after, Servicing and repairing etc.	
(c) What policy would you suggest to govern resource mobilisation and management in your school?	<b>Management policy:</b> <ul style="list-style-type: none"> <li>Text book policy for managing including the purchasing of resources.</li> </ul>	3
	<b>Mobilisation policy:</b> <ul style="list-style-type: none"> <li>We do not know much about the resource mobilisation policy because we only see Micro projects coming to the school to put up structures. We are not sure about the procedures of sourcing funds; Maintenance policy for resources is required.</li> </ul>	4
(d) What practices/ways would you suggest to govern the sustenance of educational resources for your school for the future?	<ul style="list-style-type: none"> <li>Have the policy to govern every thing in school; furniture, equipment, text book rental etc. this will avoid solving problems as they come (ad hoc). Administrators should monitor the usage of resources like electricity, water, stationery; remind learners and staff on the need to save resources; conduct routine checks on unnecessary use of educational resources and facilities. This would avoid solving problems untimely, but instead promote the aims of education.</li> </ul>	3
	<ul style="list-style-type: none"> <li>Put the policy into practise than to leave it on paper only. Appoint resources to wardens (clerical officers) Determine the state or condition of the book as it is taken by the learner so that we may know what to expect at the end of the year. Monitor the usage of resources.</li> </ul>	4
	<ul style="list-style-type: none"> <li>Bring all stakeholders on board with information flow on how to take care of the resources (learners, parents, and teachers) and what is</li> </ul>	7

	<p>expected of each stakeholder. Suppliers can offer huge discounts when buying from them in bulk, thus making the purchase of resources even cheaper. Conduct routine checks on unnecessary use of resources</p>	
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## MEGA FGI

<b>GENERATING AND MANAGING RESOURCES</b>		
<b>QUESTION 1</b>	<b>RESPONSE</b>	
a) How does your department mobilise teaching and learning resources?	<ul style="list-style-type: none"> <li>• Requisition from the school office; Subject fees payment by parents</li> </ul>	<b>04</b>
	<ul style="list-style-type: none"> <li>• Requisition from the school office. We sometimes receive donations for our department needs from the French cultural services through the Inspectorate office</li> </ul>	<b>06</b>
b) How do you manage the available resources in your department?	<ul style="list-style-type: none"> <li>• use stock books</li> </ul>	<b>04</b>
	<ul style="list-style-type: none"> <li>• Keep records for perishables like tonners, papers and non perishables like computers; Stock book. In my department we also teach learners how to take care and use of resources like refrigerators which is part of the syllabus.</li> </ul>	<b>08</b>
	<ul style="list-style-type: none"> <li>• Stock book</li> </ul>	<b>06</b>
	<ul style="list-style-type: none"> <li>• keep resources in cupboards, keep records of the resources</li> </ul>	<b>02</b>
<b>FACTORS AFFECTING GENERATING AND MANAGING EDUCATIONAL RESOURCES</b>		
<b>QUESTION 2</b>	<b>RESPONSE</b>	
a) What challenges and benefits do you experience in <b>generating</b> and <b>managing</b> educational resources for your department?	<b>Benefits:</b>	
	<ul style="list-style-type: none"> <li>• we work without any problems because the resources are available; one can be able to see what is missing and what to add to your resources</li> </ul>	<b>02</b>
	<ul style="list-style-type: none"> <li>• teaching and learning continues smoothly; learners work independently at home; you are able to tell which material resources are available like furniture</li> </ul>	<b>08</b>
	<ul style="list-style-type: none"> <li>• one can be able to maintain the stock book and give an account of it</li> </ul>	<b>06</b>
	<b>Challenges</b>	
	<b>08</b> some devices become outdated yet they are expensive to	

	buy like white marker boards; learners lag behind it there are no enough resources; resources being outdated do not meet the current standard of teaching and learning	
	<ul style="list-style-type: none"> <li>text books ordered from abroad countries do not arrive on time causing challenges in teaching from abroad countries especially in French; Costs of the teaching materials are high and they end up few in number when purchasing them; some get stolen without even noticing that is, theft</li> <li>when demonstrating some of the things you are teaching about, you do not have the equipment required e.g. DVDs or projectors to show earthquake or volcano for learners to see; Deterioration in the condition of resources/facilities in the morale of facility users e.g. the instruments not working</li> <li>there are no storerooms to keep the text books in use thus vulnerable to theft</li> </ul>	<b>06</b>                      <b>04</b>                      <b>02</b>
b) What suggestions would you have regarding improving the various challenges and problems in resource generation and management in your department? E.g. theft, etc.	<ul style="list-style-type: none"> <li>Ensure adequate management with regard to documentation, planning, implementation and evaluation of resources through workshops for HODs ; Close monitoring of the resources; Suggest lessons on taking care of resources</li> <li>build up the storerooms to keep the resources in good place to ensure they are safe</li> </ul>	<b>06</b>                      <b>04</b>
<b>PRACTICES FOR SUSTAINING EDUCATIONAL RESOURCES</b>		
<b>QUESTION 3</b>	<b>RESPONSE</b>	
a) What policy would you suggest to govern resources mobilisation for	<ul style="list-style-type: none"> <li>Have a resource mobilisation policy within the department</li> <li>Have a resource maintenance policy within</li> </ul>	<b>04</b>                      <b>02</b>





	<p>Economics products. It is important to develop a rapport and friendship with suppliers, communities, NGO's, companies. Creating a database for funders with similar vision to that of the school can sustain educational resources.</p>	
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## MANGO FGI

GENERATING AND MANAGING EDUCATIONAL RESOURCES		
QUESTION 1	RESPONSE	
a) How does your department mobilise teaching and learning resources?	<ul style="list-style-type: none"> <li>• through requisition from the office; from subject fee</li> <li>• from subject fee</li> <li>• from subject fee; requisition form the office</li> <li>• from subject fee</li> </ul>	<p>1</p> <p>4</p> <p>3</p> <p>2</p>
b) How do you manage the available resources in your department?	<ul style="list-style-type: none"> <li>• we keep records of all resources in our department through the stock book</li> <li>• we use the stock book to record our department facilities</li> <li>• we use the stock book</li> <li>• we use a stock book. When facilities need repairs and maintenance, they are reported to the administration. The administration then hires a company from outside that deals with maintenance to repair facilities.</li> </ul>	<p>2</p> <p>3</p> <p>4</p> <p>1</p>
FACTORS AFFECTING GENERATING AND MANAGING EDUCATIONAL RESOURCES		
QUESTION 2	RESPONSE	
a) What challenges and benefits do you experience in generating educational resources for your department?	<p><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>• have an extended resource base; good performance of the department; An increased number of learners can make possible for the school to have adequate space, furnishings and more resources and the department attracts more learners; have enough resources required.</li> <li>• department performance improves, school environment also improves</li> <li>• have an extended resource base; attraction of more learners and improvement in the school environment</li> <li>• the department can attract more learners and have suitable furnishings</li> </ul> <p><b>Challenges:</b></p>	<p>1</p> <p>4</p> <p>3</p> <p>2</p>



	locally; have a resource management committee; use ICT equipment to check and manage inventory; service and repair resources	
b) What practices would you recommend for the sustenance or maintenance of educational resources in your department for future?	<ul style="list-style-type: none"> <li>conduct routine checks on unnecessary use of resources and facilities; attach notices to switches and exits to remind users to turn off lights and other appliances; create a database for funders with similar vision to the school; develop a rapport and friendship with suppliers, communities, NGOs and companies to support schools</li> </ul>	2
	<ul style="list-style-type: none"> <li>conduct routine checks on unnecessary use of resources and facilities; attach notices to switches and exits to remind users to turn off lights and other appliances; invest on fundraising strategies; develop a rapport and friendship with suppliers, communities, NGOs and companies to support schools; remind learners and staff on the need to save resources. Carefully conscientising all relevant stakeholders involved, that is, learners, staff and community on the need to preserve or save resources. This can minimise the chances of misusing resources and the reckless handling of school facilities by people who lack knowledge about the importance of concerning themselves with educational resources.</li> </ul>	3
	<ul style="list-style-type: none"> <li>monitor the usage of resources like water, electricity, stationery etc; consider all stakeholders involved regarding resources</li> </ul>	4
	<ul style="list-style-type: none"> <li>remind learners and staff on the need to save resources; monitor the usage of resources like water, electricity, stationery etc</li> </ul>	1

## MASIKO FGI

<b>GENERATING AND MANAGING RESOURCES</b>		
<b>QUESTION 1</b>	<b>RESPONSE</b>	
a) How does your department mobilise teaching and learning resources?	<ul style="list-style-type: none"> <li>Requisition from the school office; Subject fees payment by parents are used to buy current assets like perishable goods and stationery. The fixed assets are left to be decided upon by the office of the HT.</li> </ul>	<b>04</b>
	<ul style="list-style-type: none"> <li>Requisition from the school office; Donations from French cultural services through the Inspectorate</li> </ul>	<b>06</b>
b) How do you manage the available resources in your department?	<ul style="list-style-type: none"> <li>use stock books</li> </ul>	<b>04</b>
	<ul style="list-style-type: none"> <li>Keep records for perishables like tonners, papers and non perishables like computers; Stock book</li> <li>We see to it that learners take good care of the school furniture, because if they do not do so, there is little hope of getting new furniture soon. (Masiko HOD). Stock book.</li> <li>keep resources in cupboards, keep records of the resources</li> </ul>	<b>08</b> <b>06</b> <b>02</b>
<b>FACTORS AFFECTING GENERATING AND MANAGING EDUCATIONAL RESOURCES</b>		
<b>QUESTION 2</b>	<b>RESPONSE</b>	
a) What challenges and benefits do you experience in <b>generating</b> and <b>managing</b> educational resources for your department?	<b>Benefits</b>	
	<ul style="list-style-type: none"> <li>we work without any problems because the resources are available; one can be able to see what is missing and what to add to your resources</li> <li>Teaching and learning continues smoothly; learners work independently at home; you are able to tell which material resources are available like furniture. The school is likely to attract more learners.</li> <li>one can be able to maintain the stock book and give</li> </ul>	<b>08</b> <b>02</b> <b>06</b>







	<p>database for funders with similar vision to the school; Develop a rapport and friendship with suppliers, communities, NGO's, companies. They can replace outdated resources and mind the compatibility of the resources; they can give new and current information</p> <ul style="list-style-type: none"> <li>• Working hand-in-hand with stakeholders develop a rapport and friendship with suppliers, communities, NGO's, companies. They can offer huge discounts when buying from them; Invest on fundraising strategies, like selling from Agriculture and Home Economics products</li> </ul>	<b>06</b>
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# MIKO FGI

GENERATING AND MANAGING EDUCATIONAL RESOURCES		Participant
QUESTION 1	RESPONSE	
(a) How does the school generate teaching and learning resources for your department?	• Fee per subject	6
	Some are perishable and affordable like in Consumer Science; large items are decided upon by the schools; We report our resource requirements to the regional Inspector. This is taken further to the office of the Senior Inspector who then provide some of the big items we need like refrigerators for our practical's in the Consumer Sciences department.	4
	Social department buys after a year or two from subject fees	5
	Commercial/Business department writes a requisition at the end of the year to ask for text books	3
(b) How do you manage/maintain the available resources in your department?	we teach learners how to use and care for the resources like the refrigerators from the syllabus; repairs are reported to the administration and they hire a company from outside that deals with maintenance to repair; Faulty assets are kept in the government stores department at Matsapha, that is, those that are not repairable, to be accounted for before government on what happened to the items. We give a full account about the asset, especially those that are not repairable in the school for government to have records.	4
	we have instruments like weather station which has a fixed period of time after which they are disposed and replaced	5
	Text books are managed by stock book where we record the number of books issued to each teacher, number of teachers. Check at the end of the year if they are all in then submit to the principal. We also keep	3

	records of the resources, perishables like tonners, papers and non perishables like computers. We keep records of our materials and store rooms.	
<b>FACTORS AFFECTING GENERATING AND MANAGING EDUCATIONAL RESOURCES</b>		
<b>QUESTION 2</b>	<b>RESPONSE</b>	
(a) What challenges and benefits do you experience in generating and managing educational resources for your department?	<b>Challenges:</b> <ul style="list-style-type: none"> <li>Some of the big items are expensive to buy so replacing them takes a vey long time thus causing challenges in the teaching and learning process because they need a lot of money thus makes it a challenge to work without such resources. It depends on the school budget if there is an allocation for that item, if not it takes a very long time to replace; stealing of resources like small items happen. No time to check the resources available after every practical lesson due to time constraints so it becomes difficult to trace the lost resources; Challenge of storage of the resources exists</li> </ul>	<b>4</b>
	<ul style="list-style-type: none"> <li>Learners like touching of resources and there is a challenge that they like to run carrying them, which they can fall and brake them; learners need to be pushed to read the weather and it becomes a challenge to remind them on a daily basis. There may be a big challenge in replacing the facilities when they are broken.</li> </ul>	<b>5</b>
	<ul style="list-style-type: none"> <li>Some of the resources do not provide up to date information. The deterioration in the condition of facilities like furniture, equipment and text books do not provide up</li> </ul>	<b>3</b>

	to date educational and social services thus leading to interruptions of the teaching and learning process.	
	<ul style="list-style-type: none"> <li>When demonstrating some of the things you are teaching about, you do not have the equipment required e.g. DVDs or projectors to show earthquake or volcano for learners to see. This becomes a challenge in teaching and learning</li> </ul>	6
	<b>Benefits:</b> <ul style="list-style-type: none"> <li>There is ease of teaching with resources available and understanding of concepts as learners see the items you are talking about. Performance of the school improves and we attract more learners; We are able to replace perishable items yearly thus we ensure good maintenance and management, we see what is missing</li> </ul>	4
	<ul style="list-style-type: none"> <li>Experiencing the touch of the resources makes learning last in the learners minds</li> </ul>	5
(b) What suggestions would you have regarding improving the various challenges/problems in resource generation and management	<ul style="list-style-type: none"> <li>Budget earlier for the resources, ensure financing that is, arrange funding routes; Fully furnishing of the laboratories per departments for a successful introduction of the subject, that is ensure adequate management with regard to documentation, planning, implementation and evaluation of resources; books are rented out to learners but they are not of good quality such that they do not last. Rent out the books for a period of 3years then replace them. Take proper care of the books like to charge the learner to replace it if lost.</li> </ul>	4

	<ul style="list-style-type: none"> <li>There is no way to observe the condition of the books as issued to learners, so it is better to have proper records of the books. That is ensuring adequate management with regard to documentation, planning, implementation and evaluation of resources; expensive books are not well kept in the hands of the learners yet they are scarce. Learners must be made aware that they have to take good care of the resources in their care; if not there are serious consequences that will follow. Books are not well taken care of the textbooks within the first term.</li> </ul>	<b>3</b>
	<ul style="list-style-type: none"> <li>have a text book policy because there is none at the moment</li> </ul>	<b>7</b>
	<ul style="list-style-type: none"> <li>Weather station in controlled so learners are told not to disturb, rain gauge is made up of copper thus safely kept. Learners are warned that they should not play next to these delegate resources.</li> </ul>	<b>5</b>
<b>PRACTICES FOR SUSTAINING EDUCATIONAL RESOURCES</b>		
<b>QUESTION 3</b>	<b>RESPONSE</b>	
(a) How resourceful is your department in terms of furniture, equipment, teaching/learning materials? Does your department have resources for present and future?	<ul style="list-style-type: none"> <li>Resources are never enough; some are still missing in my department e.g. the measure for intensity of the sun, how hot the sun is how quickly water evaporates, needed for improvement purposes.</li> </ul>	<b>05</b>
	<ul style="list-style-type: none"> <li>A lot of the resources are still missing, as technology advances; we still have to get more of the e-learning resources to deliver up to the expected standards.</li> </ul>	<b>04</b>
	<ul style="list-style-type: none"> <li>There is room to improve the standard of resources provided because resources are</li> </ul>	<b>07</b>

	used to provide adequate, up-to-date educational and social services.	
	<ul style="list-style-type: none"> <li>For purposes of basic resources, they are enough, but not really in the standard we are expecting resources to be.</li> </ul>	<b>03</b>
(b) What approaches or strategy can be used to manage educational resources effectively?	<ul style="list-style-type: none"> <li>many stakeholders are involved here (parents, learners, principals) so let them all participate; HODs should be involved in budgeting for their departments to know the state of the school coffers to avoid demanding more resources where there is actually no money, that is, mind the rate at which needs and requirements of resources occur; therefore careful management of resources can be done to make aware all the stakeholders involved, learners and staff on the need to save resources.</li> </ul>	<b>03</b>
	<ul style="list-style-type: none"> <li>Give incentive to HODs, learners, teachers for taking good care the resources and spending less on funds for that department. Mind the security of resources; Workshop the HODs as managers on how to take care of the resources so as to teach the learners as well and achieve school goals. How resources are looked after, Servicing and repairing etc.</li> </ul>	<b>04</b>
	<ul style="list-style-type: none"> <li>The ICT equipment can be used to check and manage inventory even for servicing and repairing resources and for back up purposes.</li> </ul>	<b>07</b>
(c) What policy would you suggest to govern resource mobilisation and	<b>Management policy:</b> <ul style="list-style-type: none"> <li>Text book policy for managing including the purchasing of resources.</li> </ul>	<b>3</b>

management in your school?	<b>Mobilisation policy:</b> <ul style="list-style-type: none"> <li>We do not know much about the resource mobilisation policy because we only see Micro projects coming to the school to put up structures. We are not sure about the procedures of sourcing funds; Maintenance policy for resources is required.</li> </ul>	4
(d) What practices/ways would you suggest to govern the sustenance of educational resources for your school for the future?	<ul style="list-style-type: none"> <li>have the policy to govern every thing in school; furniture, equipment, text book rental etc. this will avoid solving problems as they com. Ensure good maintenance to promote the aims of education</li> </ul>	3
	<ul style="list-style-type: none"> <li>put the policy into practise than to leave it on paper only. Appoint resources to wardens (clerical officers)</li> </ul>	4
	<ul style="list-style-type: none"> <li>Bring all stakeholders on board with information flow on how to take care of the resources (learners, parents, and teachers) and what is expected of each stakeholder. Determine the state or condition of the book as it is taken by the learner so that we may know what to expect at the end of the year. Monitor the usage of resources. Conduct routine checks on unnecessary use of resources</li> </ul>	7
	<ul style="list-style-type: none"> <li>Investing on fundraising strategies, like selling from Agriculture and Home Economics products can help support schools with funds for maintenance of educational resources.</li> </ul>	3