MOBILIZATION AND ALLOCATION OF TEACHING AND
LEARNING RESOURCES AMONG SUBJECTS IN PUBLIC
SECONDARY SCHOOLS IN MAKUENI COUNTY, KENYA

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A MASTER OF EDUCATION DEGREE (ECONOMICS OF
EDUCATION) OF KENYATTA UNIVERSITY

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DECLARATION

This project is my original work and has not been presented for a degree in any other university/Institution for consideration of any certification. This research project has been complemented by referenced sources duly acknowledged. Where text, data, (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited using APA system and in accordance with anti-plagiarism regulations.

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DEDICATION

To my children Beryl and Allan, my mother Mary Mutheo and my sister Mumbe.

God bless you all.
ACKNOWLEDGEMENT

This study would not have been accomplished without the contributions of a number of persons to whom I am greatly indebted. First is my supervisors Dr. T. O Rugar and Dr. John Nderitu (Chairman) for their professional guidance, encouragement and fruitful suggestions towards this study. I wish to appreciate the great assistance, understanding and concern offered to me. Also I take this earliest opportunity to thank all my lecturers in the entire department especially Dr. G. A. Onyango, Dr. J. Nyerere, Dr. M. Githongori, Dr. S. Njihia, Dr. N. Ogeta, Dr. Itolondo, Mr. Gatimu and Proffesor J. Orodho for their scholarly advice. I also wish to thank my classmates G. Nyamu, P. Onani, G. Oure, W. Muma, M. Macharia, Eliud W. Simiyu, Muiruri Njaramba, Everlyne Neondo, Irene Chepkwony, Alice Getrude and Njau Wamatu for their friendliness, academic advice and comforting company.

And to all those who in one way or the other participated and contributed to the success of this study but are not mentioned by name herein, your contributions were most important. Kindly accept this as recognition of your efforts.
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## ABBREVIATIONS AND ACRONYMS

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>BOM</td>
<td>Board of Management</td>
</tr>
<tr>
<td>CBO</td>
<td>Community Based Organization</td>
</tr>
<tr>
<td>FBO</td>
<td>Finance Based Organization</td>
</tr>
<tr>
<td>FTI</td>
<td>Fast Track Initiative</td>
</tr>
<tr>
<td>FDSE</td>
<td>Free Day Secondary Education</td>
</tr>
<tr>
<td>GoK</td>
<td>Government of Kenya</td>
</tr>
<tr>
<td>HoD</td>
<td>Head of Department</td>
</tr>
<tr>
<td>KCSE</td>
<td>Kenya Certificate of Secondary Education</td>
</tr>
<tr>
<td>MoE</td>
<td>Ministry Of Education</td>
</tr>
<tr>
<td>MoEST</td>
<td>Ministry of Education Science and Technology</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>RMI</td>
<td>Repairs Maintenance and Improvement</td>
</tr>
<tr>
<td>SEDL</td>
<td>South West Educational Development Laboratory</td>
</tr>
<tr>
<td>SMASSE</td>
<td>Strengthening Mathematics and Sciences in Secondary Schools</td>
</tr>
<tr>
<td>SWAp</td>
<td>Sector Wide Approach to planning</td>
</tr>
<tr>
<td>TSC</td>
<td>Teachers Service Commission</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UPE</td>
<td>Universal Primary Education</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
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</tbody>
</table>
ABSTRACT

The Kenyan government is committed to providing adequate teaching and learning resources by financing basic education for all its citizens. In spite of this commitment, sufficiency of resources remains unachieved in public schools due to inadequate financial resources in most parts of the country. The purpose of this study was to find out methods of resource mobilization and allocation amongst subjects in public secondary schools in Makueni County. This study utilized the cost-effective model which emphasized on educational evaluation and how this can be used to evaluate instructional programs. Descriptive survey design was utilized in the study. The target population included 129 principals, 877 teachers and, 7,273 students. The total target population was 8,279. Sampling was done using random and non-random methods. The sample was drawn from 129 secondary schools. Out of these schools, 26 schools were sampled with all the 26 principals purposively sampled to participate in the study. Teachers were sampled using a formula developed by Gay in 1992. Teachers sampled were 88 from the 26 schools such that at least each school had a male and a female teacher in the sample. Students were sampled using a formula developed by Yamane in 1967. The total student sample was 379 with 190 boys and 189 girls. The total sample size was 493 respondents. The study used questionnaire as the main data collection tool. Piloting was done two weeks before the study in one secondary school which was not included in the sampled schools. Validity of instruments was ascertained by consulting supervisors while reliability was done by use of the test re-test method. A correlation \( r = 0.79 \) was obtained. The data was analyzed using descriptive statistics and the findings presented by use of frequency tables and graphs. The findings of the study revealed that teaching and learning resources were majorly acquired through purchase by school by using government funds (69.23%) and donations by NGOs (61.14%). Teaching and learning resources were majorly allocated according to class size or enrollment per subject (80.77%) and resources available in schools (69.23%). The major challenges in mobilizing and allocating school resources were lack of enough funds (82.61%) and large class enrollment (69.23%). Parents’ involvement and prioritizing critical areas of teaching and learning were suggested as the major possible ways of curbing the challenges. The study thus concludes that provision of sufficient teaching and learning resources needs to be integrated within a poverty reduction strategy that anticipates and provides for forward and backward linkages of the expanded education system. The study recommended that Ministry of Education should provide capacity building to all schools managers on standards and guidelines on budgeting in order to improve on the coordination and accountability of all funds received by the schools.
CHAPTER ONE

INTRODUCTION

1.1 Background to the Problem

Expectations are rising for students and teachers to perform at higher levels, and for schools to guarantee the success of all students. As a result, the question of how best to mobilize and allocate teaching and learning resources among various subjects in the curriculum becomes even more critical.

This then means that for any subject, the relevant resources are necessary so that the objectives laid down by the Ministry of Education are met. Curriculum developers too have pointed out that no curriculum can be effectively implemented if the necessary teaching learning resources are not made available. Maranga (1993) asserts that instructional resources and methods of instruction among others affect the amount of learning that takes place. Further, Mc Grath (1993) says that, all students should be provided with sufficient resources to achieve the expected performance levels and therefore, effective learning in any education system demands that resources are made available to students.

Kenya has been putting a lot of emphasis on the sufficiency of educational resources being offered to public schools. As a result of this, the Kenyan education sector has undergone major transformations in the last thirty years undertaken by special commissions and working parties established by the government. Through these commissions, the government has sought to address challenges facing the education
sector through a wide range of policy initiatives (Wycliffe & Christopher, 2009). These researchers too state that focus has been on the attainment of Universal Primary Education (UPE) and Free Day Secondary Education (FDSE) as well as achieving greater participation in school subjects through public provision of teaching and learning resources.

To ensure sufficiency of resources in public education, the Kenyan government began providing textbooks in schools immediately after independence as one measure of supporting children from poor families under the School Equipment Scheme (Chakava, 1996). Increased enrolment in subsequent years constrained the government ability to fully meet the needs of schools and pupils. The government then introduced a policy on “participant and support” which is cost-sharing and it stipulated that the government would encourage those who participated in services provided by the government to finance the recurrent costs of those activities. This meant that parents with children in schools were encouraged to help in meeting the cost of educating their children (GoK, 1986).

Policies were then formulated in line with the World Bank Policy Studies on Education in 1988. One recommendation of this paper was cost-sharing. Following this was the Sessional Paper No. 6 of 1988 which placed the responsibility of the provision and maintenance of physical facilities and equipment firmly on parents’ shoulders (Republic of Kenya, 1988). In the cost-sharing strategy, the government finances educational administration and professional services while communities, parents and sponsors provide physical facilities, books and supplementary readers, stationery and other
consumables. This led to the abolition of the School Equipment Scheme in 1989. Through cost-sharing, schools have been able to raise finances where the communities have shared costs with the government in provision of a variety of basic human services like education.

Kremer et al (2002) states that the increasing public demand for education and training has stretched the government budget and this has led to intensified partnerships between parents, communities, individuals, donors and the civil society. Parents not only finance education through paying of school fees but also through self-help effort ‘Harambee’. Harambee literary translates to ‘let’s pull together’. It is a system adopted under Kenya’s first president in which communities raise funds for schools and other public goods (Kremer et al., ibid).

Donor funding has also helped in aiding sufficiency of learning and teaching resources in public schools through provision of instructional materials, increasing teacher competencies, building management capacities of school administrators and overall policy formulation in both primary and secondary schools (Wycliffe and Christopher, 2009). This is evident in the adoption of Sector Wide Approach to planning (SWAp) where donors brought positive changes via financing of specific projects like FTI which funded instructional materials as well funding of implementation of Sessional paper 1 of 2005 which has been a success due to donor funding (Republic of Kenya, 2005).

Financing of education in Kenya is also outlined in the Basic Education Act 2012, where secondary education is currently financed through capitation grants from the
government under FDSE programme and boarding user fees by households. The private sector, FBOs, NGOs and CBOs too, invest in secondary education and complement financing by government and parents (Republic of Kenya, 2012). Under government capitation, the resources mobilized are allocated according to guidelines issued by the Ministry of Education. After the allocation, the governing bodies delegate authorities to the school principals in relation to how the school budget is prepared including decisions on teaching learning resources. The Principals are supposed to draw budgets for each votehead before expenditure is undertaken.

As per the guidelines from the MoE, the school management and especially the principals in secondary schools are expected to ensure prudence in the use of school funds and adhere to the financial regulations in the Financial Management Instructions Handbook by the Ministry of Education Science and Technology (MoEST, 2006). Through a circular by the MoE issued in January 2008, the government has given guidelines on how FDSE is to be used and also encouraged schools to start income-generating projects so that they can supplement their budgets (Republic of Kenya, 2006).

These funds are disbursed in two accounts namely; Tuition account and Operation account. Tuition account deals basically with the welfare of students and the operation account deals with the welfare of non-teaching staff and the day to day running of the school. In order to achieve the purpose of the funds, the disbursements are accompanied by voteheads which act as a guide on how to use the money. Virement from one
votehead to the other is allowed upon permission by the BOM but virement between
one account to the other is not allowed.

Funds are disbursed using the school enrolment and changes experienced during Form
One admissions are effected in the May disbursement. The voteheads are as presented
in Tables 1.1 and Table 1.2.

**Table 1.1: Tuition Account**

<table>
<thead>
<tr>
<th>s/no</th>
<th>Votehead</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Textbook</td>
<td>Buying of textbooks that are needed by the students</td>
</tr>
<tr>
<td>2.</td>
<td>Exercise book</td>
<td>Buying of writing materials required by the students</td>
</tr>
<tr>
<td>3.</td>
<td>Laboratory equipment</td>
<td>Equipping the laboratories</td>
</tr>
<tr>
<td>4.</td>
<td>Teaching/learning</td>
<td>Buying materials used as teaching aids and reference materials</td>
</tr>
<tr>
<td></td>
<td>materials</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Chalk</td>
<td>Buying chalks</td>
</tr>
<tr>
<td>6.</td>
<td>Teachers guide</td>
<td>Buying books used by teachers in the course of teaching</td>
</tr>
<tr>
<td>7.</td>
<td>Internal exams</td>
<td>Buying exams, typesetting and reproducing exams</td>
</tr>
<tr>
<td>S/NO</td>
<td>Votehead</td>
<td>Purpose</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>Repair maintenance and improvement</td>
<td>Used in doing repairs of physical facilities and school properties, doing such works that will help to maintain the facility to its intended purpose or improving its usefulness to the school</td>
</tr>
<tr>
<td>2.</td>
<td>Local travel and transport</td>
<td>It caters for travel costs of both teaching and non teaching staff while on official duty away from the school. It also caters for subsistence i.e. lunch allowances and accommodation away from the school.</td>
</tr>
<tr>
<td>3.</td>
<td>Administrative costs</td>
<td>Used to cater for PTA, BOM meetings expenses of travelling and allowances, bank charges etc</td>
</tr>
<tr>
<td>4.</td>
<td>Electricity, Water and Conservancy</td>
<td>Paying for water bills, petrol used to pump water, buying cells, paying electricity and conserving the environment like fumigating the school compound</td>
</tr>
<tr>
<td>5.</td>
<td>Activity Fees</td>
<td>Transport for both students and teachers during activities, buying sports uniforms, subsistence during these activities and seminars for coaches</td>
</tr>
<tr>
<td>6.</td>
<td>SMASSE</td>
<td>Used in SMASSE activities only</td>
</tr>
<tr>
<td>7.</td>
<td>Personal Emolument</td>
<td>Supposed to pay non teaching staff their salaries and gratuity upon retirement</td>
</tr>
<tr>
<td>8.</td>
<td>Medical</td>
<td>Buying first aid medicine that can be dispensed by the school nurse and also paying for minor treatment in the local dispensaries</td>
</tr>
</tbody>
</table>

Source: MoE Circular MOE/G1/9/1/44
The financial flows to schools are however not only erratic but have also become inadequate to cover school needs. Funds are sometimes delayed or become unpredictable on when they will be released hence grounding the operations of a school. The suppliers also increase their profit margin when selling to schools due to the unpredictability of time of pay. In addition, VAT imposed on textbooks means that the same funds given by the government are returned to the government as tax. Textbooks provided for in the orange book keep on changing and this is a cost to many schools as they must keep changing the course books as per the Orange Book.

Funds received in voteheads like SMASSE, activity and administration costs received in schools are reverted to the MoEST through joint activities, SMASSE and many workshops organized by both the MoE and TSC. This in essence creates conflict with parents who cannot understand why money should come to school and later be sent back to the same government.

Allocation of all voteheads is done solely on the enrolment. Some voteheads should not be rationalized on that basis. The enrolment used by the government has not been accurate so far. Some schools overstate the number of students that they have and others are given with less population. Example of a school that had 40 students who left Form Four and got 90 students in Form One will get less allocation with 50 students in Term One and Term Two before the enrolment is adjusted to include the additional Form One students. In addition, the further the school from town the lower the population and the higher the cost of transport hence the cost to get there is higher than the highly populated schools in towns. There are also essential workers that should be employed in
all schools yet the small schools cannot afford to pay them due to low population. Lastly, all schools must have the same number of meetings for BOM, Principals and other staff yet the administration cost votehead is based on the enrolment.

The Personal emolument votehead was designed by the government to cater for non-teaching staff but in most schools it’s used to pay BOM teachers. This has caused low wages to the non-teaching staff and the employment of unskilled persons since the schools cannot afford to pay the skilled workers. Further, these voteheads do not provide for some items like the lockers and desks since the RMI votehead is meant to repair only and not purchase.

Of importance is the tuition votehead whose funds are used specifically for the procurement of teaching learning materials. With the serious underfunding of secondary schools, principals have to manage budgets that are insufficient to cover costs faced by the schools. It is thus inevitable that they are faced with a higher level of responsibility whose role in the management of school finances is essential to the efficient operations of the funding system. To accomplish this, schools must work within their capacity to produce budgets that support the needs of their students. In addition to funding to meet the statutory requirements placed upon them and to take account of their individual needs, schools need to source for extra funding to enable effective teaching and learning (Rennie, 2012).

Apart from government capitation and parents’ payment of school fees as the major methods of financing secondary education, various other methods of resource
mobilization have been adopted. Chikati (2011) identifies some of these methods as donor funding, earned income from various income generating activities by schools, membership fees, general public and careful planning. This has been supported by Geoffrey and Gatere (2012) who cite the sources of school finances to include the government, parents, strategic partners and the general community both individual and groups and school income generating projects. Once these resources are mobilized, the school management is assigned the duty of managing them by making sure that budgets are prepared and adhered to and that financial controls are put in place.

With the aggressive public education reforms currently taking place in Kenya, It is thus important to ask not only whether new initiatives are effective in raising student achievement but also how best they can maximize current investments in teaching and learning (Renee, ibid). Since the school management is accountable to the government, donors, parents, pupils and students, it must improve the school academic performance through purposed planning, management and control of resources. Renee (2012) states that timely acquisition, equitable allocation and proper utilization of these resources will bring about efficiency in schools thus increase the overall learner achievement. Conceptually, efficiency refers to outputs in relation to inputs. In operational sense, it means elimination of systemic factors that cause waste in the use of resources or delay in the provision of services (Brown, 1981). In relation to this study, efficiency has the dimension of a prior attempt to provide for effective planning, allocation and management of education resources.
While schools ideally should use comprehensive information systems to develop data driven budgets that link school spending to desired educational outcomes, examples of these are rare (Renee, ibid). He says that school budgets have mostly been constructed piecemeal over decades to meet the increasing demand and conflicting priorities of different schools. Thus what schools need is a more strategic and deliberate budgeting as well as tools and resources to help challenged schools and districts make more efficient and effective spending decisions. There is a need therefore to understand the methods of resource mobilization and allocation in different schools and the strategies used to allocate the resources among various competing subject needs. Makueni County being one of the counties in the arid region and among the less developed in the country has schools in the region facing severe financial challenges. The poverty index is 3.1 and 64% of the population are considered to be living below the poverty line (Kenya Census, 2009). Makueni County has not been at its best in KCSE performance. It was ranked at number 23 out of the 47 counties in 2013.

In view of the foregoing, this study seeks to find out methods of resource mobilization as well as strategies used in resource allocation among competing subject needs in secondary schools in Makueni County.

1.2 Statement of the Problem

The effectiveness of secondary education in Kenya is measured through the performance of students in KCSE. Traditionally, teaching learning inputs and exam scores have been used as proxies for quality. Although there may be other factors that contribute to the poor performance, teachers and pupils in secondary schools in the
county may be facing serious challenges that concern the mobilization and allocation of teaching and learning resources among competing subject needs. This study, therefore, sought to find out strategies used in mobilization and allocation of teaching learning resources among competing subject needs.

1.3 **Purpose of the Study**

The purpose of the study was to determine strategies used in mobilization and allocation of teaching and learning resources amongst subjects in secondary schools in Makueni county.

1.4 **Objectives of the Study**

The specific objectives of the study were to:

i. Find out methods used to acquire teaching and learning resources in public secondary schools in Makueni County.

ii. Find out strategies used to allocate teaching and learning resources among competing subject needs in the public secondary schools in the county.

iii. Establish challenges faced by schools in mobilization and allocation of teaching and learning resources in secondary schools in the county.

iv. Find out possible ways to enhance mobilization and allocation of teaching and learning resources in secondary schools in the county.
1.5 Research Questions

The study sought to answer the following research questions:

i. What methods are used to acquire teaching and learning resources in public secondary schools in Makueni County?

ii. What strategies are used to allocate teaching and learning resources among subjects with competing needs in public secondary schools in Makueni County?

iii. What are the challenges faced by secondary schools in the mobilization and allocation of teaching and learning resources in secondary schools in Makueni County?

iv. What are the possible ways to enhance mobilization and allocation of teaching and learning resources in secondary schools in Makueni County?

1.6 Significance of the Study

The information gathered and presented would highlight the challenges secondary school teachers face in acquisition of teaching learning resources as well as their allocation amongst competing subject needs. Better allocation of current resources will aid in development of finance policies that provide resources more appropriately in schools in which students have trouble reaching performance targets. The recommendations would be a way of solving some of these challenges.
1.7 Assumptions of the Study

The following were the assumptions of the study:

i. Principals, teachers and learners in Makueni County were well-informed of the importance of teaching learning resources.

ii. Teachers in Makueni County taught their subjects using a variety of teaching learning resources.

iii. There were various challenges facing teachers and their learners in public secondary schools in mobilization and allocation of teaching learning resources.

iv. The unavailability and misallocation of teaching learning resources was contributing to the poor performance in national examinations the county.

1.8 Limitations of the Study

The researcher would have wished to collect data from the whole population but due to limitations such as vastness of the area, a difficult terrain, difficulties in administration of the instruments to the whole population and unwilling respondents, the researcher thus used a sample.

1.9 Delimitations of the Study

The study confined itself to only two constituencies of Makueni County that is Kibwezi East and Kibwezi West. Further, only public secondary schools in the county and form three students were sampled. However, for a more conclusive result, all constituencies in the county need to be studied.
1.10 Theoretical Framework

The study utilized the Cost Effective Model also called the Evaluation Model developed by Alkin in 1970. He emphasizes the process of educational evaluation and defines evaluation as the process of ascertaining the decision areas of concern, selecting appropriate information, collecting and analyzing information in order to report a summary of data useful for decision-makers in selecting among alternatives. Alkin used the model to discuss how to evaluate instructional programmes in schools. It comprises the following elements: External systems, students’ input, financial inputs, manipulatable characteristics.

The external system in this case refers to the many social systems within which the school is placed. For a public secondary school, the external system consists of parents, communities, sponsors or the government. Student input refers to the student entering the programme from the social system. Financial resources are made available by the government, parents, and sponsors in order to acquire resources that are to be used in the school. Manipulative characteristics are descriptive characteristics of the way in which the financial inputs will be utilized to acquire the resources.

The outcome of the manipulative characteristics will determine the quality and quantity of teaching and learning resources that are provided in the school. It is out of timely provision of teaching learning resources and fair allocation among competing subjects that can lead to better performance by students.
Figure 1: Theoretical Framework

Source: Adapted from Alkin (1970: 226)
1.11 Conceptual Framework

The conceptual framework represents the interrelationship between two variables in the study. According to the model, the independent variables (mobilization and allocation) are conceptualized and assumed to impact on the dependent variable (adequate resources and increased academic outcomes) in secondary schools in Makueni County. Resources are mobilized through financial contribution from parents, community, sponsors and the government. These resources are to be utilized in the provision of
physical and material resources through allocation. In this study, the researcher will consider management to comprise resource mobilization, budgeting, selection of resources to be used in school from needs assessment, following right procedure to acquire selected resources and equitable allocation.

The acquired resources are then utilized to achieve the academic objectives of the school. Good management practices lead to adequate and equitable allocation of teaching learning resources that are required in school to be utilized by teachers and pupils which will result to better performance in KCSE exams. Poor management practices lead to inadequate teaching learning resources that are required in school. This in turn affects teaching and learning which in the long run affects the KCSE performance. The study thus sought to find out how secondary schools go about mobilizing and allocating resources among competing subject needs.
1.12 Operational Definitions of Central Terms

Management- Practices comprising resource mobilization, budgeting, selection of resources to be used in schools from needs assessment, following right procedures to acquire selected resources and equitable allocation of resources among subjects.

Public Schools - Schools that receive government grants for maintenance and payment of teachers.

Teaching and Learning Process - Instructional process whereby teachers teach and learners participate in learning. It involves interaction of teachers and learners in teaching learning situation.

Teaching and Learning Resources - All material resources used in class during the process of teaching and learning to enhance the teaching /learning process.

Strategy- General Plan or set of plans intended to achieve something especially over a long period of time.

Systemic Reform-Creating an educational system in which all components like instruction, administration, support and resources of the school system are aligned and addressed by multiple levels e.g. state, district, schools and community to produce more sustainable changes so that all students can reach more challenging performance standards.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Research in recent decades has tried to broaden the understanding of the role of school resources in student outcomes and how their distribution and use might be improved. Studies in different parts of the world have shown a strong relationship between resources and student success. The studies further indicated that allocating resources within selected areas and for certain practices might make significant impact on student performance. Though many scholars have emphasized on the importance of appropriate selection of teaching learning resources and the need for improvisation in order to cut cost, public education is generally underfunded and learning resource funding in not much targeted thus it is difficult for teachers to get the learning resources they need for their classrooms. There is considerable variation from district to district and even school to school in how monies for learning resources are raised and how decisions are made about purchases to be made.

2.2 Trends in Mobilization and Allocation of Teaching Learning Resources in Public Secondary Schools

Garms, Guthrie and Pierce (1978) argue that education has never been free and that it requires expenditure of considerable time and resources which could be used to produce other valuable materials used by that particular society. They further stated the sources of revenue for schools to be government subsidies, government provisions referring to capitations and other provisions that schools may benefit from government, cost-
sharing, NGOs, CBOs, private firms /individuals and the community. Torberg and Hessel (2011) state that in most European countries, when it is the responsibility of the central government, it is financed directly by national income though in most countries, the central governments are at least partly responsible for this educational level. Finances are sourced from taxes and grants from the government.

In Dutch schools for example, the funding from the government depends on the size of school and no extra funding from the local government, no tuition fees and parents freely choose the school for their child, (de Haan et al; 2011). There is, however, the minimum school size in order for a school to attract state funding. Due to this funding formula, some schools closed down, others merged and the average school size increased. de Haan et al found that this funding formula significantly increased student achievement as competition in the market decreased because of decreased service providers. They interpret the result as evidence of scale economies. Limited studies if any have been conducted in this area thus the need for a study in Makueni County.

Gharfoor (1985) carried out studies in Pakistan for ‘The Education Sector Project’ implemented in 1974 to 1984 on how the project was impacting on equity, quality and efficiency and he listed down various factors underlying the poor quality of education offered. This study found out the predominant factors included poor physical facilities, dilapidated school buildings and the dearth of instructional materials and text books. Padmanabhan (1984) carried out studies in India in the states of Uttar, Pradesh and Kerala on financing of education and found that 40% of primary schools and 14% of secondary schools were not provided with adequate material facilities. These schools
happened to be in rural areas. The study thus recommended that schools should seek alternatives and diversify funding sources. This study did not however find out the various sources of school finances in these regions. This study sought to find out what other sources of finances schools in the district have adopted so as to be able to acquire the required teaching and learning resources.

Studies done in Tanzania by Galabawa (2008) on ways of enhancing education quality and efficiency cite that policies instituted in the country in the 1990s through 2000 which included vision 2025, civil and institutional financial reforms, education development programmes, poverty rehabilitation, debt relief initiatives, all these were applied as a tool for economic and qualitative change especially in education. He showed that fundraising acts are stable sources of revenue for schools. Other sources identified in the study included parental contributions during registrations, admission of new pupils, raffles and mixed music-evenings. These studies were supported by Babyegeya (1999) in Galabawa (2008) identified seven sources of finance in the Lake Victoria zone which included parental contribution, school economic projects, school fees, funds from local community development associations and school funding bodies. This study sought to find out if similar methods are used to mobilize resources for schools.

A study by Makulu (1971) on ‘Education Development and National Building in Independent Africa’ showed that parents and communities participated in education by providing labour and land while the missionaries provided other educational facilities. According to this study, this was brought about by the fact that by 1965, the
government learnt that it could not limit growth of unaided secondary schools due to the increasing demand for education at the time. Due to high financial constraints, the government introduced cost-sharing strategy as outlined in the sessional paper No.6 of 1988 ‘Educational and Manpower Training for the Next Decade and Beyond’. Under cost-sharing strategy, parents and communities met cost of resources including physical and material while the government met administrative costs including teacher salaries. This cost-sharing policy combined with increased demand for education has led to the increased role of communities and parents in funding education.

In 2008, the government introduced FDSE in Kenya, providing free tuition and this caters for material resources but development of physical facilities and some recurrent costs like provision of teaching learning resources, test and exam fees and other indirect costs is still in the hands of the parents. With the serious underfunding of education in secondary schools, the school has its own duty of trying to make up for inadequate institutional budgets. Similar studies needed to be done in Makueni County.

2.3 Allocation of Teaching and Learning Resources

It is important to understand the allocation of resource in schools for two reasons. One is that education is produced by schools rather than districts and that the level and quality of resources received by schools will be critical in determining student performance. Research by Duncombe and Yinger (2000); Chambers et al (2004), Odden and Fermanich (2001) in their studies on ways of financing higher student performance show that students with different characteristics may require different levels of resources to meet performance needs. Perrot (1998) in his study on mobilization and
management of financial resources for education states that the optimal use of educational resources requires a perfect knowledge of the financing system and of the resources themselves in terms of size, nature and availability together with a clear definition of objectives and priorities in the educational fields. He stresses that budget management techniques and practices are essential to ensure that there is equity in allocation.

It is noted in the study that the most immediate consequence of the inadequacies of financing procedures is that implementation programmes are often delayed or blocked. This view is supported by studies done in India by Padmanabhan (1984) on financing of education which showed that if India’s expenditure per pupil in primary education is the lowest in the world, it is partly because sums allotted are insufficient but also because budgetary procedures do not ensure that credits allocated are released in time.

A study by UNESCO in 1979 in Thailand on ‘Project for Improvement of Financial Practices in Educational Institutions’, aimed at finding factors which condition local needs and availability of local resources, found that by assessing the needs, a school can determine what part of the school budget will be assigned to teaching learning resources which are made possible by the analysis of such data like school population, its distribution and size of educational establishment etc. The same study suggests that budgetary techniques such as performance budgeting can help ensure resources are fully used in accordance with priority objectives. In his case, resource allocation is presented in terms of programmes, activities and projects. Projects are seen in the triple perspective of the selection of targets, the assessment of the necessary resources and of
the search for funding sources provided that the people in charge have at their disposal reliable indicators and sufficiently complete well-broken data. Considering this study, at school level and by looking at the local resources, a school can determine how much each subject can be allocated.

A study by SEDL (2003) on ‘Examination of Resource Allocation in Education’ in America examined district level patterns of resource allocation, district and school resource practices implemented to improve student performance as well as barriers and challenges faced by districts and schools to efficient resource allocation. The study examined data on student performance as well as fiscal and human resource allocation from four states of Arkansas, Louisiana, New Mexico and Texas. The study found out that high performing districts in all the four states showed a general pattern where higher performance was associated with higher spending on instruction as a share of current expenditures. In addition, in all the twelve districts studied in these states, they were found to re-allocate resources away from administrative and other non-instructional areas. This study thus will seek to establish if public secondary schools in Makueni County use needs assessment to determine the resources required for each subject and subsequently budget for the same for the various subjects.

2.4 Challenges in the Mobilization and Allocation of Teaching and Learning Resources in Schools

According to SEDL (2003) study, resource allocation in improved districts involved a trade-off process in which funds, time, staff and other resources are divided among competing needs often creating inequalities. In the study, teachers and administrators
indicated that a number of allocation challenges were resolvable like the need to build staff capacity. However, other barriers and challenges remained unresolved and negatively impacted the ability of schools to effectively allocate resources to support performance. They included unexpected fluctuations in fund sources, increased time demands on staff and unsupported state and federal mandates. This study further recommended that schools should consider allocation and application of fiscal and non-fiscal resources as an integral part of the education reform process as this would enhance and support student gains.

UNICEF (2012) in its report on public finance in East Asia identified a number of bottlenecks in mobilization and allocation of resources which included a lack of clear standards for schools and classrooms, insufficient understanding and monitoring of the relationship between quality inputs and outcomes. This report recommended schools that don’t meet standards should receive more funding in order to address factors contributing to the disparity. This report further suggested the need for schools to identify key performance indicators so that schools can link budget allocations and outcomes and to strengthen EMIS and human capacity to better measure inputs and outputs. It is important that the challenges faced by principals are identified; those that have been resolved and those that remain unresolved so that action measures may be taken to overcome them and improve on resource mobilization and prioritize resource allocation in order to improve on performance. A similar study was needed to be carried out in Makueni County in order to provide solutions of challenges related to mobilization of resources that have remained unresolved.
2.5 Summary of Literature Review

Literature has been reviewed on two areas, namely; mobilization and allocation of teaching and learning resources. First, research has been reviewed on methods of resource mobilization in developed countries like America and Sweden, in Asia and in Sub-Saharan Africa. Various methods have been identified as strategies for mobilizing teaching and learning resources. However, these studies were done in different environments in the world. There are limited studies conducted on this subject area in Kenya and specifically in Makueni County and this study aims at filling this gap. This study will also seek to identify other sources of funding adopted by schools to meet their budget deficits.

Second, literature has been reviewed on allocation of teaching and learning resources in developed countries as well as in Sub-Saharan Africa. It has identified best practices which can lead to equitable allocation of teaching and learning resources in schools in various parts of the world. Few studies had been done in this area in Makueni County. Therefore, the above among other research gaps identified in this review necessitated an in-depth study to identify the practices and strategies used by schools in allocation of teaching and learning resources in Makueni County.
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter provides a description of the procedure that was followed in conducting the study. Specifically, it focuses on the research design, location of study, sample and sampling procedures, research instruments, data collection, data analysis logistical and ethical considerations.

3.2 Research Design

This research adopted a descriptive survey study design. Creswell J. (2008) describes a survey design as a procedure in quantitative research in which an investigator administers a survey to a sample or the entire population of people to describe the attitudes, opinions, behaviors or characteristics of the population. According to Best and Khan (1993), a descriptive research presents what is or what was in a given social system. It aims at getting a true picture of a situation, behavior or attitude of individuals and community at large. This study sought to find out methods of resource mobilization and allocation of teaching and learning resources by carrying out a survey to a sample population to get information on methods of resource mobilization and allocation of teaching and allocation of teaching and learning resources in secondary schools in Makueni County. The study gathered information on challenges faced by schools in the county in the mobilization and allocation of teaching and learning resources and how best the challenges faced by secondary schools in this area can be solved. Therefore, this method was suitable for this study.
It can be used to describe the nature of existing conditions, and to determine the relationship between specific events that have influenced or affected present condition. The rationale for choosing this design is that it can be carried out within a short time frame as it is cross-sectional and it does not manipulate the behaviour of the participant as well as allowing for a variety of data gathering techniques.

In addition, the study utilized both qualitative and quantitative approaches. This is deemed appropriate due to the fact that no single method is ever adequate in investigating a problem with rival causal factors (Patton, 1990). Obonyo (1994) states that this combination allows flexibility while examining factors in an attempt to obtain the pertinent information.

### 3.3 Study Locale

This study was carried out in Makueni County. It is one of the counties in the former Eastern Province of Kenya and covers an area of 8,008.9 km². As per the population census of 2009, it has a total population of 884,527 inhabitants (Kenya Census, 2009). The county has six constituencies which are Mbooni, Kilome, Kaiti, Makueni, Kibwezi East and Kibwezi West. It borders Kitui District to the East, Taita Taveta District to the South, Kajiado West District and Machakos County to the North. Its temperatures range from between 12 degrees to 28 degrees. Rainfall ranges from 150mm to 650 mm per annum (Kenya Census, 2009).

Resources in the county include wildlife, forests, minerals, building sand, rivers, pasture and land. Economic activities carried out in the county include small and large-scale
trade, dairy farming, limited coffee growing, and eco-tourism is also a key producer of fruits and vegetables. According to the county statistics office, the county had 901 primary schools, 253 secondary schools, 38 tertiary colleges and 231 adult literacy centres by 2007.

This county is selected because it also has all categories of schools that is National, County, Sub-County and District which may be girls, boys, mixed day, mixed day and boarding or mixed boarding. In addition, the researcher has a vast knowledge of the county and this makes it easy to undertake the research at reasonable cost. These characteristics make the county ideal for the research.

3.4 Study Population

The study was be carried out in public secondary schools. The respondents were 129 principals, 877 teachers and 7,273 form three students. The study targeted head teachers who were the managers of the schools and teachers as they have a vast knowledge of the school resources as well as their mobilization and allocation in the schools. It also targeted the form three students as they are viewed to have acquired enough knowledge on school resources.

3.5 Sample Size and Sampling Techniques

Gay (1992) states that for small populations, a sample size of at least 20% of the population is a good representation while for large populations, 10% is representative enough. The study used 40 % of the total constituencies which makes 2 constituencies since it is a small population. The two constituencies have a total of 129 public
secondary schools. Schools in each of the constituencies were then stratified into various types that is boys, girls, mixed boarding, mixed day and boarding and mixed day. The researcher sampled 20% of the principals in these schools to make 26 head teachers. Each of the type of school was represented by a sample of 20% of its population.

Table 3.1: Summary of principals’ sample

<table>
<thead>
<tr>
<th>Constituency</th>
<th>N</th>
<th>n</th>
<th>B (N)</th>
<th>B (n)</th>
<th>G (N)</th>
<th>G (n)</th>
<th>Mixed (N)</th>
<th>Mixed (n)</th>
<th>MD (N)</th>
<th>M (n)</th>
<th>MD/B (N)</th>
<th>MD/B (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kibwezi East</td>
<td>58</td>
<td>12</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>36</td>
<td>7</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Kibwezi West</td>
<td>71</td>
<td>14</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>35</td>
<td>7</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>129</td>
<td>26</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>14</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key**: Bn – Boys school sample, Gn – Girls school sample,

MBn – Mixed Boarding school sample, MDn – Mixed Day Sample

MD/Bn – Mixed Day and Boarding sample

The schools in both constituencies have a total of 877 teachers with 577 male and 300 female. To get the number of teachers to participate in the study, the researcher utilized 10% of the total teacher population. This made 88 teachers. The teachers were classified in terms of gender and each gender was represented by 10% of its population.
The following formula was used to get the number of students to take part in the study

\[ n = \frac{N}{1 + N(e)^2} \]

Where;

n=sample size,

N=population

e= is sampling error / level of precision (Yamane, 1967).

Using the formula above and taking sampling error to be 0.05, and the student population in the two constituencies to be 7,273, the sample size was 379 students. This meant that the study used 5.211% of the student population in the sampled constituencies. To get the actual number of students for the study, the researcher used stratified and proportionate sampling where each sex (boys and girls) was represented by 5.211%. The researcher then used purposive random sampling techniques to get the actual students and the category of school. The table below gives the summary of student sample.

<table>
<thead>
<tr>
<th>Constituency</th>
<th>N</th>
<th>n</th>
<th>Male</th>
<th>Mn</th>
<th>Female</th>
<th>Fn</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kibwezi East</td>
<td>418</td>
<td>42</td>
<td>282</td>
<td>28</td>
<td>136</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Kibwezi West</td>
<td>459</td>
<td>46</td>
<td>295</td>
<td>30</td>
<td>164</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>877</td>
<td>88</td>
<td>577</td>
<td>58</td>
<td>300</td>
<td>30</td>
<td>10</td>
</tr>
</tbody>
</table>
Table 3.3: Summary of students’ sample

<table>
<thead>
<tr>
<th></th>
<th>B (N)</th>
<th>G (N)</th>
<th>B (n)</th>
<th>G (n)</th>
<th>Mixed Boarding</th>
<th>Mixed D/B</th>
<th>Mixed day</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (N)</td>
<td>B (n)</td>
<td>G (N)</td>
<td>G (n)</td>
<td>B (N)</td>
<td>B (n)</td>
<td>G (N)</td>
<td>G (n)</td>
</tr>
<tr>
<td>Kibwezi East</td>
<td>3,265</td>
<td>418</td>
<td>16</td>
<td>22</td>
<td>249</td>
<td>13</td>
<td>180</td>
<td>9</td>
</tr>
<tr>
<td>Kibwezi West</td>
<td>4,008</td>
<td>667</td>
<td>29</td>
<td>18</td>
<td>18</td>
<td>1</td>
<td>20</td>
<td>1</td>
</tr>
</tbody>
</table>

KEY

Bn – Boys School Sample

Gn – Girls School Sample

MBn – Mixed Boarding school Sample

MDn – Mixed Day School Sample

MD/Bn – Mixed Day and Boarding Sample.
3.6 Research Instruments

The study utilized the questionnaire as the key research instrument for principals, teachers and students. Both closed and open-ended questions were used to allow flexibility. According to Bell (1993) and Kane (1995), the use of questionnaire was preferred as it allows the collection of data from a larger group of people as is the case of this study. Further, they are least costly and are easy to quantify and to summarize the results. The study had three sets of questionnaires. They are the principals’ questionnaire, teachers’ questionnaire and the students’ questionnaire.

3.6.1 Principals’ Questionnaire

This questionnaire was divided into three parts. Part A dealt with the principal’s profile as well as general information about the school. Part B dealt with methods of resource mobilization and allocation among subjects in the schools while Part C gathered information on challenges encountered in mobilization and allocation of resources as well as possible solutions to these challenges.

3.6.2 Teachers’ Questionnaire

The teachers’ questionnaire is divided into three parts A, B, and C. Part A gathered information on the background of the teacher, part B gathered data on resource mobilization and allocation while Part C gathered data on challenges encountered and possible solutions.
3.6.3 Students’ Questionnaire

This questionnaire was divided into two parts. Part A gathered information on the student profile while part B gathered information on role played by students in resource mobilization and allocation as well as possible ways of enhancing resource mobilization and allocation of teaching and learning resources.

3.7 Piloting of Research Instruments

The instruments were piloted in one secondary school two weeks before the actual study and the school was not part of the main study. The purpose of piloting was to test the reality on the ground and if the questionnaire was comprehensive to the respondents and thereafter items which were ambiguous or unclear to respondents was modified accordingly before the final study. Piloting also familiarized the researcher with administration of the instruments.

3.8 Validity

Validity of an instrument refers to its ability to measure what it is supposed to measure (Borg & Gall, 1989). Validity was tested by consulting two supervisors who are experts in the field of education for face and content validation.

3.9 Reliability

Reliability of instrument concerns the degree to which a particular measuring procedure gives similar results over a number of repeated trials (Mugenda & Mugenda, 1999). Reliability was conducted through the test re-test method. It involved administering the
questionnaire twice within a period of two weeks after which the responses of the two sets were correlated by use of the Pearson’s Rank Order Correlation formula.

\[
\begin{align*}
    r &= \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{N (\sum X^2) - (\sum X)^2 \cdot N (\sum Y^2) - (\sum Y)^2}} \\
\end{align*}
\]

Where \( r \) = the Pearson’s coefficient correlation index.

\( X_i \) = the value of X variable given by the first trial

\( Y_i \) = the value of Y variable given by the second trial

\( N \) = Number of observations or subjects of X and Y.

The value \( r \) was obtained to be 0.79 which was greater than 0.7, then the correlation was high and hence the instrument was judged to be reliable.

### 3.10 Data Collection Procedures

The researcher got an introduction letter from Kenyatta University then proceeded for a permit from the Ministry of Education. The researcher then sought permission from the County Education Officers in Kibwezi East and Kibwezi West constituencies to carry out the research. An appointment to visit and administer the questionnaire to respondents in the sampled schools was sought. The researcher then visited the schools and administered the appropriate instruments to the different cadres of respondents on agreed dates. Respondents were given enough time to complete them. In administration of the questionnaires to students, the items were clarified to them. All respondents were assured of anonymity and that all information collected were confidential and no victimization whatsoever took place.
3.11 Data Analysis

Descriptive statistics namely frequencies and percentages were used to analyze quantitative data obtained from the questionnaires. The qualitative data was analyzed by first grouping the data into themes and then giving them codes. The findings of the study are presented in form of frequency tables and bar graphs. The performance rates in average subjects were measured using a 3-likert scale and relative mean and standard deviations were computed. The codes were assigned numbers and analyzed quantitatively.

3.12 Logistical and Ethical Considerations

The researcher ensured that instruments were pre-tested to avoid items being omitted during data collection. The researcher made a visit before data collection to create a rapport with the respondents as well as familiarize with the terrain and establish the most suitable means of transport during data collection. At the same time, during the visit, researcher ascertained the language which was most suitable for the respondents. The researcher followed the appropriate chain of command and decorum. Researcher also sought informed consent from participants and assured them of confidentiality and anonymity during and after study. Researcher sought permission from school administrators in case of collection of data from students.
CHAPTER FOUR
DATA PRESENTATIONS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents data collected, results and discussion of the study findings on strategies used in mobilization and allocation of teaching and learning resources amongst subjects in secondary schools in Makueni County. The findings of the study were guided by research objectives as indicated in chapter one as shown:

i) Find out methods used to acquire teaching and learning resources in public secondary schools in Makueni County.

ii) Find out strategies used to allocate teaching and learning resources among competing subject needs in the public secondary schools in the county.

iii) Establish challenges faced by schools in mobilization and allocation of teaching and learning resources in secondary schools in the county.

iv) Find out possible ways to enhance mobilization and allocation of teaching and learning resources in secondary schools in the county.

The data was analyzed based on research questions with the aid of Statistical Package for Social Sciences (SPSS). The data is presented and discussed under related subheadings using descriptive statistics such as percentages, frequencies tables and bar graphs.
4.2 Response Rate

The study intended to collect information from 493 respondents. However, out of 493 questionnaires that were administered to the respondents, a total of 386 questionnaires were returned during the study. This translated to a response rate of 78.30% which was considered to give logical results. The response rate was summarized in the Table 4.1.

Table 4.1: Respondents turnout rate

<table>
<thead>
<tr>
<th>Category</th>
<th>Population</th>
<th>Expected Sample size</th>
<th>Actual sample size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principals</td>
<td>129</td>
<td>26</td>
<td>26</td>
<td>100.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>877</td>
<td>88</td>
<td>60</td>
<td>68.18</td>
</tr>
<tr>
<td>Students</td>
<td>7273</td>
<td>379</td>
<td>300</td>
<td>79.16</td>
</tr>
<tr>
<td>Total</td>
<td>8279</td>
<td>493</td>
<td>386</td>
<td>78.30</td>
</tr>
</tbody>
</table>

4.3 Demographic Information

4.3.1 Age Distribution of Students

The respondents were asked to indicate their age and gender, and the responses obtained are summarized in Figure 4.1. Age according to this study means the number of years since birth while gender means male or female. Age was important in order to know the overage or underage students and gender was important to determine the transition rate of the girls and boys.
The results from the Figure 4.1 indicate that majority (43.33%) of the students were aged between 15-18 yrs; an age range of adolescence. Perhaps allocation of resources was to be done in such a way that suits the learning altitude of students that was determined by age; hence age was an aspect of resource allocation in secondary schools. However, only (17.00%) were above 18 years implying that repetition rate was low. Those in the age bracket of 13-14 years were only (5.33%) implying that few went to school at an early age.

**Figure 4.1: Distribution of students by age**

Source: Students’ Questionnaire
4.3.2 Distribution of Teachers by Gender

![Bar chart showing distribution of teachers by gender]

Figure 4.2: Distribution of teachers by gender

Source: Teacher’s Questionnaire

Teachers were asked to give their gender. Gender in the study means male or female and was important to determine employment trends of male and female teachers in the schools. The findings are represented in Figure 4.2. The table reveals that majority of teachers (68.33%) were male teachers. However, only (31.67%) were female implying that allocation of resources in secondary schools was mostly performed by males. Few females had management roles towards resource management in schools.
4.3.3 Distribution of Teachers by Age

Teachers were asked to give their age. Age in this study means number of years since birth. It was important in order to determine if teachers were employed immediately after training or not.

![Bar chart showing age distribution of teachers](image)

**Figure 4.3: Distribution of teachers by age**

Source: Teachers’ questionnaire

The results from Figure 4.3 indicate that majority (68.33%) of the teachers were aged between 30-39 years. However, only (18.33%) were aged between 21-29 years. Those aged between 19-20 years were (5.00%) while 40-49 years were (8.34%). This implies that trained teachers are not mainly absorbed in public schools immediately after their graduation.
4.3.4 Education Level of Teachers

Teachers were asked to give their level of education. This was important in order to know if teachers have acquired the necessary pedagogy skills for quality teaching. The results are represented in figure 4.4.

![Bar Chart]

**N = 60**

**Figure 4.4: Distribution of teachers by level of education**

Source: Teachers’ questionnaire

The results of the study indicated that majority (88.33%) of the teachers was Degree holders; (6.67%) were Diploma holders; and (5%) were Master’s holders. This means that teachers have the necessary pedagogy skills.
4.3.5  Distribution of Principals by Gender

The respondents were asked to give information about their gender. This was important in order to know if male and female have equal representation in management positions in schools. The results are as given in table 4.2.

Table 4.2: Gender distribution of the principals

<table>
<thead>
<tr>
<th></th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>18</td>
<td>69.23</td>
</tr>
<tr>
<td>Females</td>
<td>8</td>
<td>30.77</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Principals’ questionnaire

Table 4.2 indicates that males dominate the principals’ position at 69.23%. This reveals that gender disparity continued to exist in Kenyan education sector. Makueni County is therefore not an exception.
4.3.6 Teaching Experience of Principals

Teaching experience was important in order to know the principals had any experience on resource mobilization and allocation in schools.

![Distribution of principals by teaching experience](image)

N = 26

**Figure 4.5: Distribution of principals by teaching experience**

Source: Principals’ questionnaire

The results of the study indicated that majority (73.08%) of the principals had a teaching experience of over 10 years; only 7.69% had a teaching experience 1-5 years an indication that many heads of schools were old enough in their workstations and could effectively develop ways of enhancing effective mobilization and allocation of teaching and learning resources in their schools.
4.3.7 Years of Service as Principals

The principals were asked to indicate how long they had served as principals and the number of years they had served in their current schools. The aim was to establish whether the principals had served long enough to be conversant with policies of mobilization and allocation of teaching and learning resources in secondary schools. The results are shown in Figure 4.6.

Majority of the principals (76%) had served as principals and in the current station for a period of not more than 5 years. Since this was the shortest time of service, majority did not have enough time and experience to know the operational structure of mobilization and allocation of resources.
4.4 Methods used to Acquire Teaching and Learning Resources in Public Secondary Schools

The first objective was to establish the methods used to acquire teaching and learning resources in public secondary schools. The respondents were asked to indicate some of the methods they used to acquire teaching and learning resources in their schools. The findings are represents in Tables 4.3 and 4.4.

Table 4.3: Principals and teachers response on methods of acquiring teaching and learning resources

<table>
<thead>
<tr>
<th>Method</th>
<th>Teachers n=60</th>
<th>Principals n=26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase by school through government funds</td>
<td>48 f, 80%</td>
<td>18 f, 69.23%</td>
</tr>
<tr>
<td>Locally made</td>
<td>4 f, 6.67%</td>
<td>2 f, 7.69%</td>
</tr>
<tr>
<td>Borrowed</td>
<td>13 f, 21.67%</td>
<td>0 f, 0.00%</td>
</tr>
<tr>
<td>Donation by NGOs</td>
<td>25 f, 41.67%</td>
<td>16 f, 61.54%</td>
</tr>
<tr>
<td>Public contributions and Fundraising</td>
<td>14 f, 23.33%</td>
<td>11 f, 42.31%</td>
</tr>
<tr>
<td>CDF</td>
<td>36 f, 60.0%</td>
<td>5 f, 19.23%</td>
</tr>
<tr>
<td>Parents’ contributions</td>
<td>3 f, 5.00%</td>
<td>2 f, 7.69%</td>
</tr>
</tbody>
</table>

Source: Teachers’ and Principals’ Questionnaires

From Table 4.3, majority (80%) of teachers reported that their schools acquired teaching and learning resources through purchase by school using the government funds. This was in agreement with the response rate of the principals in which majority (69.23%) also agreed with the statement. This implies that government funds had the biggest contributions to school resources. However, the findings revealed that parents
contributed the smallest portion as reported by minority of teachers and principals at a response rate of (5%) and (7.69%) respectively. This is an indication that parents were inadequately involved in the process of acquiring teaching/learning resources in secondary schools.

4.4.1 Acquisition Methods of Teaching and Learning Resources

Based on the first objective, students were further asked to indicate the methods their schools used to acquire teaching and learning resources. This was important in order to know if students understood how their schools mobilized and allocated teaching and learning resources. Table 4.4 gives the results on the methods of acquiring teaching and learning resources as described by the students.

Table 4.4: Students response on methods of acquiring teaching and learning resources

<table>
<thead>
<tr>
<th>Method</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents’ contributions</td>
<td>19</td>
<td>6.33</td>
</tr>
<tr>
<td>Borrowed</td>
<td>50</td>
<td>16.67</td>
</tr>
<tr>
<td>Fundraising</td>
<td>154</td>
<td>51.33</td>
</tr>
<tr>
<td>Purchase by school through government funds</td>
<td>231</td>
<td>77.00</td>
</tr>
<tr>
<td>CDF Funds</td>
<td>27</td>
<td>9.00</td>
</tr>
</tbody>
</table>

n=300

Source: Students’ questionnaires
The results from table 4.4 reveal that majority (77%) of the respondents reported that their schools acquired teaching/learning resources through purchasing by school using government funds. This implies that schools in this county are heavily reliant on government funding to manage their daily operations and meet their financial obligations.

Majority of students (51.33%) also indicated that fundraising was a major source of funds for purchase of teaching learning materials. However, fundraising is futile as these schools are surrounded by poor communities who can barely afford even the minimal amounts involved in fundraising activities. Further, the study found out that parents did not give much contribution to the school budget as only (6.33%) students indicated that their school resources were funded by parent. Only (9.00%) of students indicated that CDF funds were used to purchase teaching learning resources. The findings from students agreed with the findings from teachers and principals where majority reported that the schools majorly acquired their teaching/learning resources through purchase by the school through government capitation.

These findings are supported by the findings of the studies done in Tanzania by Galabawa (2008) on ways of enhancing education quality and efficiency. The findings of the study showed that fundraising activities are stable sources of revenue for schools. Other sources identified in the study included parental contributions during registrations, admission of new pupils, raffles and mixed music-evenings. The findings were also supported by Babyegeya (1999) in Galabawa (2008) where he identified seven sources of finance in the Lake Victoria zone which included parental
contribution, school economic projects, school fees, funds from local community 
development associations and school funding bodies.

A study by Makulu (1971) on Education Development and National Building in Independent Africa showed that parents and communities participated in education by providing labour and land while the missionaries provided other educational facilities. In contrast, the findings of the current study reveal that parents contribute very little towards acquiring teaching/learning resources in public secondary schools. It is however important noting that parents’ engagement to schools and at various levels of involvement is beneficial for optimum achievement of their children.

4.5 Strategies Used to Allocate Teaching and Learning Resources Among Competing Subject Needs in the Public Secondary Schools in the County

The second objective was to find out the strategies used to allocate teaching and learning resources among competing subject needs in public secondary schools. The respondents were asked to identify the strategies used to acquire teaching and learning resources in their schools. This was important in order to know if the strategies used were the most effective. The results were presented in tables 4.5 and 4.4. Table 4.5 describe critical factors as aspects considered during allocation of teaching and learning resources in secondary schools as reported by the principals and teachers.
Table 4.5: Strategies used to allocate teaching and learning resources among competing subject needs as reported by teachers and principals

<table>
<thead>
<tr>
<th>Critical factor considered</th>
<th>Teachers</th>
<th>Principals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=60</td>
<td>n=26</td>
</tr>
<tr>
<td>Number of resources available</td>
<td>48</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>80.00</td>
<td>69.23</td>
</tr>
<tr>
<td>Nature of the topic to be covered</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>6.67</td>
<td>7.69</td>
</tr>
<tr>
<td>Enrollment size</td>
<td>56</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>93.33</td>
<td>80.77</td>
</tr>
<tr>
<td>Amount of funds available</td>
<td>32</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>53.33</td>
<td>61.54</td>
</tr>
<tr>
<td>Importance of the subject</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>41.67</td>
<td>19.23</td>
</tr>
<tr>
<td>Performance of the subject</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>5.00</td>
<td>7.69</td>
</tr>
<tr>
<td>Use of schemes of work</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>16.67</td>
<td>19.25</td>
</tr>
</tbody>
</table>

Source: Teachers’ and principals’ questionnaires

Table 4.5 shows the strategies used to allocate teaching and learning resources among competing subject needs. From the results of the study, it was found that teaching and learning resources were majorly allocated according to the size of enrollment per subject, as agreed by majority of teachers (93.33%) and principals (80.77%). However, such strategies as nature of the topic and the performance were slightly considered in allocating resources. This is shown by minority of teachers and principals at a response rate of (6.67%) and (7.69%) respectively. The study also revealed that resources were allocated as per number available as indicated by (80%) of teachers and (69.23%) of principals. This implies that the most schools did not have sufficient funds and hence considered economies of scale.
Based on the investigation of strategies used to allocate teaching and learning resources among competing subject needs in public secondary schools, students were further asked to identify the strategies used to acquire teaching and learning resources in their schools. The results were presented in tables 4.6.

**Table 4.6: Strategies used to allocate teaching and learning resources among competing subject needs as reported by students**

<table>
<thead>
<tr>
<th>Method</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of resources available</td>
<td>174</td>
<td>58.00</td>
</tr>
<tr>
<td>Nature of the topic to be covered</td>
<td>52</td>
<td>17.33</td>
</tr>
<tr>
<td>Enrollment size per subject</td>
<td>205</td>
<td>68.33</td>
</tr>
<tr>
<td>Amount of funds available</td>
<td>180</td>
<td>60.00</td>
</tr>
<tr>
<td>Importance of the subject</td>
<td>24</td>
<td>8.00</td>
</tr>
<tr>
<td>Performance of the subject</td>
<td>160</td>
<td>53.33</td>
</tr>
</tbody>
</table>

Source: Students’ questionnaires

The results from the findings indicate that the majorly used strategy in allocating teaching and learning resources among competing subject needs was the size of enrollment per subject as reported by majority, (68.33%) of the respondents. This is in agreement with the teachers’ and principal’s response. Another high proportion, (60%) of the respondents also reported that amount of funds available in school greatly determined the kind of teaching/learning materials should be prioritized. Even though importance of the subject mattered in the process, it was not considered as
critical factor as indicated by a minority of respondents (8.00%). The nature of topic to be covered was not a critical factor as indicated by (17.33%) of students. This implies that public secondary schools in Makueni County did not utilize the strategy of needs assessment to determine the resources required for each subject and subsequently budget for the same for the various subjects. These findings indicate that for any case of mobilization of teaching/learning resources, some factors must be reflected on. This is supported by research by Chambers et al., (2004). In their studies on ways of financing higher student performance Chambers et al., (2004) found that students with different characteristics may require different levels of resources to meet performance needs. In contrast, Perrot (1998) in his study on mobilization and management of financial resources for education states that the optimal use of educational resources requires a perfect knowledge of the financing system and of the resources themselves in terms of size, nature and availability together with a clear definition of objectives and priorities in the educational fields. He stresses that budget management techniques and practices are essential to ensure that there is equity in allocation.

The findings of this study coincide with the findings of a study by UNESCO in 1979 in Thailand on Project for Improvement of Financial Practices in Educational Institutions. The study found that by assessing the needs, a school can determine what part of the school budget will be assigned to teaching learning resources which are made possible by the analysis of such data like school population, its distribution and size of educational establishment etc. Considering the current study, at school level and by
looking at the local resources, a school can determine how much each subject can be allocated.

4.6 Challenges Faced by Schools in Mobilization and Allocation of Teaching and Learning Resources in Secondary Schools in the County

The third objective was to establish challenges faced by schools in mobilization and allocation of teaching and learning resources in secondary schools the strategies used to allocate teaching and learning resources among competing subject needs in public secondary schools. The teachers were asked whether lack of teaching and learning resources contributed to the performance of their school in KCSE exams. Figure 4.7 gives the results.

Figure 4.7: Effect of teaching and learning resources adequacy on KCSE performance by teachers

Source: Teachers’ questionnaire
The findings from figure 4.7 reveal that adequate teaching and learning positively correlates to performance in KCSE as reported by the majority (88.33%) of the respondents.

Based on the third objective, students were further asked to provide the adequacy of such teaching and learning resources as laboratories, professional teachers, computer equipment, library and medical check-up. The results were presented in table 4.7.

Table 4.7: Adequacy of teaching and learning resources

<table>
<thead>
<tr>
<th>Availability of Teaching/learning resources as agreed by students</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Laboratories</td>
<td>26</td>
<td>8.67</td>
</tr>
<tr>
<td>2. Trained teachers</td>
<td>240</td>
<td>80.00</td>
</tr>
<tr>
<td>3. Computer equipment</td>
<td>23</td>
<td>7.67</td>
</tr>
<tr>
<td>4. Sufficient Library</td>
<td>14</td>
<td>4.67</td>
</tr>
<tr>
<td>5. Medical check-up</td>
<td>60</td>
<td>20.00</td>
</tr>
</tbody>
</table>

n=300

Source: Students’ questionnaire

It is evident in Table 4.7 that even though there were adequate trained teachers represented by (80%) in the secondary schools, only a few schools had teaching/learning facilities such as sufficient libraries (4.67%), computer equipment (7.67%), laboratories (8.67%) and medical personnel (20.00%). This implies that majority of schools did not provide conducive environment for teaching and learning since mobilization of resources had not been adequately performed.
The respondents were further asked to identify the challenges and the results were presented in table 4.8.

### Table 4.8: Challenges faced by schools in mobilization and allocation of resources

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Teachers n=60</th>
<th>Principals n=26</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Inadequate delivery of teaching and learning</td>
<td>12</td>
<td>20.00</td>
</tr>
<tr>
<td>Lack of understanding of the resources by teachers</td>
<td>4</td>
<td>6.67</td>
</tr>
<tr>
<td>Inadequate teaching/Learning resources</td>
<td>54</td>
<td>90.00</td>
</tr>
<tr>
<td>Large class enrollment</td>
<td>46</td>
<td>76.67</td>
</tr>
<tr>
<td>Poor quality resources</td>
<td>36</td>
<td>60.00</td>
</tr>
<tr>
<td>Poor time management in resource allocation</td>
<td>3</td>
<td>5.00</td>
</tr>
<tr>
<td>Insufficient funds</td>
<td>41</td>
<td>68.33</td>
</tr>
<tr>
<td>Irresponsible parents</td>
<td>3</td>
<td>5.00</td>
</tr>
<tr>
<td>Poor storage of resources</td>
<td>49</td>
<td>81.66</td>
</tr>
<tr>
<td>Wide variety of learning/teaching resources</td>
<td>34</td>
<td>56.67</td>
</tr>
<tr>
<td>Lack of stakeholder cooperation in mobilizing Teaching/Learning materials in schools.</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Some Teaching/Learning materials are more technical and need training.</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Teachers’ and principals’ questionnaire
Table 4.8 shows that even though many challenges were experienced in mobilization and allocation of teaching and learning resources in secondary schools, inadequate teaching/Learning resources due to lack of adequate funds was the major challenge as reported by majority of teachers and principals at a response rate of (90%) and (88.15%) respectively. Another proportion of the respondents; teachers (76.67%) and principals (69.23%) reported that large class enrollment also influenced effective allocation of resources. As well, (23.08%) of the principals reported that teaching/learning materials were more technical and needed training, an indication that subjects like computer studies were not fully implemented in majority of secondary schools in Makueni County.

These findings are supported by the findings of SEDL (2003). According to SEDL (2003) study, even though resource allocation in improved districts involved a trade-off process in which funds, time, staff and other resources are divided among competing needs often creating inequalities, barriers and challenges remained unresolved and negatively impacted the ability of schools to effectively allocate resources to support performance. They included unexpected fluctuations in fund sources, increased time demands on staff and unsupported state and federal mandates.

UNICEF (2012) in its report on public finance in East Asia identified a number of bottlenecks in mobilization and allocation of resources which included a lack of clear standards for schools and classrooms, insufficient understanding and monitoring of the relationship between quality inputs and outcomes.
4.7 Possible Ways to Enhance Mobilization and Allocation of Teaching and Learning Resources in Secondary Schools

The fourth objective was to establish ways of enhancing mobilization and allocation of teaching and learning resources in secondary schools based on competing subjects.

The respondents were asked to identify the possible and effective ways of enhancing mobilization and allocation of teaching/learning resources in secondary schools. The results were presented in table 4.9.

<table>
<thead>
<tr>
<th>Ways of enhancing mobilization and allocation of resources</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involving parents in acquisition of school resources</td>
<td>20</td>
<td>33.33</td>
</tr>
<tr>
<td>Reminding government to release development funds early enough</td>
<td>4</td>
<td>6.67</td>
</tr>
<tr>
<td>Increasing fees levied to the students</td>
<td>5</td>
<td>8.33</td>
</tr>
<tr>
<td>Prioritizing critical areas that require urgent action</td>
<td>11</td>
<td>18.33</td>
</tr>
<tr>
<td>Reducing procurement that is not necessary</td>
<td>1</td>
<td>1.67</td>
</tr>
<tr>
<td>Employing more trained teachers</td>
<td>3</td>
<td>5.00</td>
</tr>
<tr>
<td>Maintaining accountability based on resource management</td>
<td>12</td>
<td>20.00</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Teachers’ questionnaire

It is evident from the above analysis that mobilization and allocation of teaching and learning resources in secondary schools in Makueni County has not been adequate.
Majority (33.33%) of teachers reported that parents should be involved in acquiring the resources. Another high proportion (20%) of teachers suggested that accountability based on resource management should be maintained. Other suggested ways were: government should be reminded to release funds early enough (6.67%); fees levied to the students should be increased (8.33%); and critical areas of teaching and learning should be prioritized; and finally procurement must be reduced.

Based on the fourth study objective, students were also asked suggest on the possible ways that could be used to enhance mobilization and allocation of teaching and learning resources in their school. The following results were obtained as described in Figure 4.8.

4.7.1 Ways of Enhancing Mobilization and Allocation of Teaching and Learning Resources in Secondary Schools As Suggested by Students

![Graph showing ways of enhancing mobilization and allocation of resources](image)

- Establishing laboratories: 23.50%
- Employing more trained teachers: 67.45%
- Fitting library with adequate content: 9.05%

n= 300

Figure 4.8: Ways of enhancing mobilization and allocation of resources
Source: Student questionnaire

From the students’ report, majority (67.45%) suggested that laboratory facilities should be established to reduce congestion, (23.50%) said that more government teachers who have enough skills and can strive to help the needy students should be employed; and only (9.05%) reported that libraries should be fitted with new syllabi and reliable revision resources.

4.7.2 Ways of Enhancing Mobilization and Allocation of Teaching and Learning Resources in Secondary Schools As Suggested by Principals

<table>
<thead>
<tr>
<th>Method of enhancing mobilization and allocation of resources</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizing fundraising</td>
<td>45.26%</td>
</tr>
<tr>
<td>Improving store keeping</td>
<td>18.34%</td>
</tr>
<tr>
<td>Using resources economically</td>
<td>15.90%</td>
</tr>
<tr>
<td>Allocating resources carefully</td>
<td>15.85%</td>
</tr>
<tr>
<td>Organizing training workshops for teachers</td>
<td>4.65%</td>
</tr>
</tbody>
</table>

N = 26

Figure 4.9: Ways of enhancing mobilization and allocation of resources

Source: Principals’ questionnaire

According to majority (45.26%) of the principals, organizing fundraising and liaising with parents in buying resources was the major strategy towards enhancing mobilization
and allocation of resources in secondary schools, since CDF and development funds provided through government could not be enough to run the school. Other reforms suggested to be put in action include: improving store keeping (18.34%), economic use of resources (15.90%), careful allocation and consultation on choices (4.65%), exposing teachers through workshops for seminars and updating self on modern techniques (15.85%).

These findings are supported by a study by SEDL. According to SEDL (2003) study, recommended that schools should consider allocation and application of fiscal and non-fiscal resources as an integral part of the education reform process as this would enhance and support student gains. UNICEF (2012) report also suggested the need for schools to identify key performance indicators so that schools can link budget allocations and outcomes. It is important that the challenges faced by principals are identified; those that have been resolved and those that remain unresolved so that action measures may be taken to overcome them and improve on resource mobilization and prioritize resource allocation in order to improve on performance.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a summary of the study, draws conclusion and makes recommendations and suggestion for further research.

5.2 Summary of Findings

The study obtained information from 379 students, 88 teachers and 26 principals making a total of 493 respondents. However, out of 88 teachers’ and 379 students’ questionnaires, only 60 and 300 questionnaires were returned from teachers and students respectively. All principals’ questionnaires were returned. This led to a total of 386 respondents who participated in the study representing 78.30%. The main objective of the study was to determine strategies used in mobilization and allocation of teaching and learning resources amongst subjects in secondary schools in Makueni county. The following are the summary of the research findings based on study objectives and research questions upon which the conclusion and recommendations of the study were made.

5.2.1 Methods Used to Acquire Teaching and Learning Resources in Public Secondary Schools

From the findings of the study majority (80.00%) of teachers reported that their schools acquired teaching and learning resources through purchase by school using the government funds. This was in agreement with the response rate of the principals in
which majority (69.23%) also agreed with the statement. However, the findings revealed that parents contributed the smallest portion as reported by minority of teachers and principals at a response rate of (5%) and (7.69%) respectively. This is an indication that parents were inadequately involved in the process of acquiring teaching/learning resources in secondary schools. As well, majority (77%) of the students reported that their schools acquired teaching/learning resources through purchasing by school. However, parents did not give much contribution to the school budget as indicated by only (6.33%) who agreed that their school resources were funded by parents.

5.2.2 Strategies Used to Allocate Teaching and Learning Resources Among Competing Subject Needs

The findings of the study showed that teaching and learning resources were majorly allocated according to the size of enrollment per subject, as agreed by majority of teachers (93.33%) and principals (80.77%). However, such strategies as nature of the subjects and the performance were slightly considered in allocating resources. This is shown by minority of teachers and principals at a response rate of (6.67%) and (7.69%) respectively.

According to students, the results from the finding indicate that the most commonly used strategy in allocating teaching and learning resources among competing subject needs was the size of enrollment per subject as reported by majority, (68.33%) of the respondents. Another high proportion, (60%) of the respondents also reported that
amount of funds available in school greatly determined the kind of teaching/learning materials should be prioritized.

5.2.3 Challenges Faced by Schools in Mobilization and Allocation of Teaching and Learning Resources

Even though many challenges were experienced in mobilization and allocation of teaching and learning resources in secondary schools, inadequate teaching/learning resources due to lack of enough funds was the major challenge as reported by majority of teachers and principals at a response rate of (90%) and (88.15%) respectively. Another proportion of the respondents; teachers (76.67%) and principals (69.23%) reported that large class enrollment also influenced effective allocation of resources. As well, (23.08%) of the principals reported that teaching/learning materials were more technical and needed training, an indication that subjects like computer studies were not fully implemented in majority of secondary schools in Makueni County.

5.2.4 Possible Ways to Enhance Mobilization and Allocation of Teaching and Learning

It is evident from the above analysis that mobilization and allocation of teaching and learning resources in secondary schools in Makueni County has not been adequate. Majority (33.33%) of teachers reported that parents should be involved in acquiring the resources. Another high proportion (20%) of teachers suggested that accountability based on resource management should be maintained. Other suggested ways were: government should be reminded to release funds early enough; fees levied to the
students should be increased; and critical areas of teaching and learning should be prioritized; and finally procurement must be reduced.

From the students’ report, majority (67.45%) suggested that laboratory facilities should be established to reduce congestion, (23.50%) said that more government teachers who have enough skills and can strive to help the needy students should be employed; and only (9.05%) reported that libraries should be fitted with new syllabus and reliable revision resources.

According to majority (45.26%) of the principals, organizing fundraising and liaising with parents in buying resources since CDF and development funds provided through government could not be enough to run the school was the major strategy towards enhancing mobilization and allocation of resources in secondary schools. Other reforms suggested to be put in action include: improving store keeping (18.34%), economic use of resources (15.90%), careful allocation and consultation on choices (4.65%), exposing teachers through workshops for seminars; and updating self on modern techniques (15.85%).

5.3 Conclusions of the study

The study set out to establish the strategies used in mobilization and allocation of teaching and learning resources amongst subjects in secondary schools in Makueni County. It was evident that mobilization and allocation of resources is not effectively achieved in majority of schools due to many challenges faced in the process. Therefore, quality education in secondary needs to be integrated within a poverty
reduction and economic growth strategy that anticipates and provides for the forward and backward linkages of the expanded system. As well, parents should be sensitized on the allocation and mobilization procedures. Boards of Management of schools need to establish measures that must be taken to overcome and improve on resource mobilization and prioritize resource allocation in order to improve on performance. Mobilization of resources has become a serious concern in many public schools not only in Kenya but in other countries. Unless the government increases funding to schools the financial situation is expected to worsen. This will have serious consequences for teaching and learning outcomes. Schools are already under stress from inadequate infrastructure and teaching and learning supplies. Unless the government matches income forgone with new funding, the future of the public school system in Kenya appears dire. It is important to remember that the removal of user fees does not in any way alter the cost of educating a child.

5.4 Recommendations of the Study

In light of the findings and conclusions of this study the following were recommended:

1. The school management should consider other sources of funds apart from the government funds which can be limited. For instance, institutionalizing fundraising should be done. While the efforts adopted by the schools are commendable, it is important that procedural guidance is provided. There must be increased attention to resource mobilization as a policy issue in the education sector.
This can be integrated into the overall education strategy to ensure that there is sufficient funding to support positive learning outcomes.

2. Mostly allocation of resources in secondary schools is based on size of enrollment per subject. The Boards of Management should ensure that other critical factors like nature of the subjects and the performance should also be considered in allocating resources in order to create balance in teaching and learning activities in schools.

3. Schools should ensure that teaching/Learning resources should adequately satisfy the need of teaching/learning activities in schools. Hence class enrollment should be established in a manner that each and every learner adequately utilizes the resources.

4. Proper resource management in secondary schools has been not given proper attention by the Boards of Management. Therefore in order to enhance mobilization and allocation of teaching and learning resources parents should be involved in acquiring the resources. In addition, accountability based on resource management should be maintained.

5.5 **Suggestions for Further Research**

1. Further research should be conducted on how to develop and implement a resource mobilization strategy in secondary schools in the County.

2. Research should be conducted to examine the influence of management of school funds on students’ achievements.

3. A study should be conducted to establish ways of allocating resources economically towards boosting student achievement without spending more.
REFERENCES


Best J., & Khan J., (1993). Research in Education; Boston; Edward Arnold.


APPENDICES

APPENDIX I: PRINCIPALS’ QUESTIONNAIRE

I am a student of Kenyatta University carrying out a research on Resource Mobilization and allocation of Teaching and Learning Resources among subjects in Secondary Schools in Makueni County. Your school is among the few schools sampled for this study. You are requested to give full responses in the questionnaire provided. Your assistance will be highly appreciated. This research is meant for academic purposes only. You are requested to provide honest and precise responses as much as possible. All responses will be treated with utmost confidentiality. Do not write your name or that of your school on the questionnaire.

Yours faithfully,

Wambua A. Wayua

**PART A: BACKGROUND INFORMATION**

Please use a tick (✓) where applicable

1. What is your gender: Male ( ) Female ( )

2. What is your Age in years between
   - 20-29 ( )
   - 30-39 ( )
   - 40-49 ( )
   - Above 50 Yrs ( )

3. What is your highest level of education?
   - Ph.D ( )
   - Degree ( )
   - Masters ( )
   - Diploma ( )
   - Other, Specify: .................................................................................................................................

4. (a) Which year was the school was established? .........................................................
   (b) What is the acreage of the school ......................................................................................
5. (a) How many years have you served as a teacher? .............................................
    (b) How many years you have served as a head teacher? ......................................
    (c) How many years have served as a principal in this school? ............................... 

6. What is the student enrolment        Boys ......................... Girls .................

7. How many teachers are in the school?       Male ................. Female ............

8. What are their qualifications? (Write the number)

<table>
<thead>
<tr>
<th>Untrained</th>
<th></th>
<th>P2</th>
<th></th>
<th>P3</th>
<th></th>
<th>S1</th>
<th></th>
<th>Degree</th>
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</thead>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. How can you rate the mean grade of the school in KCSE in the last 3 years?

   Poor ( ) Fair ( ) Average ( ) Good ( ) Very Good ( )

SECTION B: RESOURCE MOBILIZATION AND ALLOCATION

1. What are the sources of funds for the school?
   i) ..................................................................................................................
   ii) ..................................................................................................................
   iii) ..................................................................................................................
   iv) ..................................................................................................................
   v) Others ........................................................................................................

2. (a) What proportion of your school budget is accounted for by each of the above sources of funds? .................................................................

   (b) Briefly explain your answer in (2a) above ..............................................

   ..................................................................................................................
   ..................................................................................................................
(c) How does the school acquire learning resources? .........................................................

Parents purchase ( )  School purchases ( )

3. (a) Are the resources mobilized by the school sufficient for acquisition of teaching learning resources?

Yes ( )  No ( )

(b) If no, what measures does the school take to ensure resources are availed?...

4. (a) Do teachers in the school improvise teaching learning resources?

Yes ( )  No ( )

b) If yes, how? ........................................................................................................

5. Does the school have clear policies concerning allocation, income and charges against the educational budget?

Yes ( )  No ( )

6. (a) Are teachers involved in making budgets for acquisition of teaching learning resources?

Yes ( )  No ( )

(b) If yes state how they are involved ........................................................................

7. Does the school have a teaching and learning resources selection committee?

Yes ( )  No ( )

8. Do individual teachers submit requests for items they require for teaching in writing at the beginning of each term?

Yes ( )  No ( )

9. If yes, does the committee prepare budgets for teaching and learning resources?

Yes ( )  No ( )

10. Are the budgets used during allocation of teaching and learning resources?

Yes ( )  No ( )
11. What strategies are used to allocate teaching and learning resources?  
If no, state why. ............................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
....................................................................................................................................................

12. Are the obsolete or worn out teaching learning resources replaced?  
Yes ( ) No ( )

13. What criteria are used to allocate resources to each subject?  
i. ................................................................................................................................................
ii. ................................................................................................................................................
iii. ................................................................................................................................................
iv. ................................................................................................................................................

14. How do you ensure that there is fairness in allocation of resources amongst subjects in the school?  
....................................................................................................................................................

PART C: CHALLENGES IN MOBILIZATION AND ALLOCATION OF TEACHING AND LEARNING RESOURCES
1. Do you think lack of teaching learning resources can contribute to the poor performance of the students in the school?  
Yes ( ) No ( )
If yes, state how...........................................................................................................................
If no, state why............................................................................................................................

2. (a) Are the stakeholders cooperative in mobilization of teaching and learning resources?  
Yes ( ) No ( )
(b) If Yes how? .............................................................................................................................
If No why? .................................................................................................................................

3. (a) Have you received any training on use of data for tracking and analyzing the effectiveness of spending?
Yes ( ) No ( )

If yes, where? ...............................................................................................................................

(b) In your own opinion, was it important? ..............................................................................

(c) If No, do you think it’s important? .....................................................................................

4. (a) What challenges has the school faced in mobilization and allocation of teaching and learning resources?
   i) ........................................................................................................................................
   ii) ........................................................................................................................................
   iii) ........................................................................................................................................
   iv) ........................................................................................................................................

   (b) What strategies are you putting in place to counter each of the challenges named in (4a) above?
   i) ........................................................................................................................................
   ii) ........................................................................................................................................
   iii) ........................................................................................................................................
   iv) ........................................................................................................................................

5. What suggestions do you think can be used to enhance mobilization and allocation of resources among subjects ..........................................................................................

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

Thank you.
APPENDIX II: TEACHERS’ QUESTIONNAIRE

I am a student of Kenyatta University carrying out a research on Resource Mobilization and allocation of Teaching and Learning Resources among Subjects in Secondary Schools in Makueni County. Your school is among the few schools sampled for this study. You are requested to give full responses in the questionnaire provided. Your assistance will be highly appreciated. This research is meant for academic purposes only. You are requested to provide honest and precise responses as much as possible. All responses will be treated with utmost confidentiality. Do not write your name or that of your school on the questionnaire.

Yours faithfully,

Wambua A.Wayua

SECTION A: BACKGROUND INFORMATION

Please use a tick (✓) where applicable.

1. What is your gender? Male ( ) Female ( )

2. What is your age in years?
   Between 19 -20 ( ) 30-39 ( ) 40 - 49 ( ) 50 years and above ( )

3. What is your highest level of education?
   Ph.D ( ) Degree ( ) Masters ( ) Diploma ( )
   Other, specify...........................................................................................................

4. How many years you have been teaching?.............................................................

5. What is your current designation?
   Dean of student ( ) Class teacher ( ) HOD ( )
   Boarding Master ( )
   Other specify..........................................................................................................
6. What are your teaching subjects?
   i) .............................................................................................................................
   ii) ..............................................................................................................................
   iii) ............................................................................................................................

SECTION B: RESOURCE MOBILIZATION AND ALLOCATION

1. How are the school’s teaching and learning resources acquired?
   i) .............................................................................................................................
   ii) ............................................................................................................................
   iii) ............................................................................................................................
   iv) ............................................................................................................................

2. In your own opinion, are the resources mobilized sufficient for teaching and learning?       Yes ( )                          No ( )

3. (a) Are teachers in the school involved in the general acquisition and allocation of resources?  Yes ( )                          No ( )
   (b) If Yes state how ...............................................................................................
       If no, why? ....................................................................................................... 

4. List down the most important facilities which are basic for teaching and learning and which in your own opinion are not readily available
   i) .............................................................................................................................
   ii) ............................................................................................................................
   iii) ............................................................................................................................
   iv) ............................................................................................................................

5. What do you think are the causes of inadequacies of teaching and learning resources?
   i) .............................................................................................................................
   ii) .............................................................................................................................
6. Suggest solutions for each of the causes in (5) above
   i) ..............................................................................................................
   ii) ..............................................................................................................
   iii) .............................................................................................................
   iv) .............................................................................................................
   v) .............................................................................................................

7. (a) Are teachers involved in drawing budgets for acquisition of teaching learning resources in the school? Yes ( ) No ( )
   (b) If Yes, state how they are involved ......................................................

8. Does the school use termly schemes of work as tools for identifying teaching and learning resources per subject? Yes ( ) No ( )

9. What strategies are used to allocate teaching and learning resources?
   i) ..............................................................................................................
   ii) ..............................................................................................................
   iii) .............................................................................................................
   iv) .............................................................................................................

10. In case you need a teaching and learning resource for your subject, what procedure do you follow to acquire it?
    i) ..............................................................................................................
    ii) ..............................................................................................................
    iii) .............................................................................................................
    iv) .............................................................................................................

11. Are the teaching and learning resources delivered in time for use in class?
    Yes ( ) No ( )
SECTION C: CHALLENGES IN MOBILIZATION AND ALLOCATION OF TEACHING AND LEARNING RESOURCES

1. In your own opinion, do you think lack of teaching and learning resources have contributed to the performance of your school in KCSE exams?
   Yes (    ) No (    )

2. What challenges do you face in mobilization and allocation of teaching learning resources?
   i) ............................................................................................................
   ii) ............................................................................................................
   iii) ............................................................................................................
   iv) ............................................................................................................

3. Suggest possible ways to enhance mobilization and allocation of teaching earning resources in the school.
   i) ............................................................................................................
   ii) ............................................................................................................
   iii) ............................................................................................................
   iv) ............................................................................................................

Thank you
I am a student of Kenyatta University carrying a research on Resource Mobilization and Allocation of Teaching and Learning Resources among Subjects in Secondary Schools in Makueni County. Your school is among the few schools sampled for this study. You are requested to give full responses in the questionnaire provided. Your assistance will be highly appreciated. This research is meant for academic purposes only. You are requested to provide honest and precise responses as much as possible. All responses will be treated with utmost confidentiality. Do not write your name or that of your school on the questionnaire.

Yours faithfully,

Wambua A.Wayua

SECTION A: BACKGROUND INFORMATION

Please use a tick (✓) where applicable.

1. What is your gender
   - Male ( )
   - Female ( )

2. What is your age in years?
   - Between 13 - 14 ( )
   - 15 - 16 ( )
   - 17 - 18 ( )
   - 19 - 20 ( )
   - Above 20 ( )
SECTION B: MOBILIZATION OF TEACHING AND LEARNING RESOURCES

1. (a) Do you have enough teaching and learning resources?
   Yes ( )  No ( )

   b) If No, what teaching and learning resources do you think are inadequate in your school?
   i) ......................................................................................................................
   ii) ......................................................................................................................
   iii) ......................................................................................................................
   iv) ......................................................................................................................

2. In case you encounter inadequacy of teaching resources, what procedure do you follow obtain it?
   i) ......................................................................................................................
   ii) ......................................................................................................................
   iii) ......................................................................................................................
   iv) ......................................................................................................................

3. Do you pay separately from your school fees for teaching and learning resources?
   Yes ( )  No ( )

4. How do you obtain your teaching learning and resources?
   i) ......................................................................................................................
   ii) ......................................................................................................................
   iii) ......................................................................................................................
   iv) ......................................................................................................................
5. (a) Do you participate in the selection of teaching learning materials used in the school? .................................................................
   (b) If yes, explain how...........................................................

   If no, do you think they should? ...........................................

6. In your opinion, do you think the availability of teaching learning resources affects your performance in examinations? Yes ( ) No ( )
   If yes, explain how...........................................................

   If no, why not? ....................................................................

7. What ways do you think can be done by the school to enhance mobilization and allocation of teaching learning resources? .................................................................

   Thank you
APPENDIX IV: RESEARCH BUDGET

The following summarizes approximation of finances to carry out the study

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<th>COST</th>
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<tbody>
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<tr>
<td>2.</td>
<td>Typing and Printing</td>
<td>7,000</td>
</tr>
<tr>
<td>3.</td>
<td>Editing the report</td>
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</tr>
<tr>
<td>4.</td>
<td>Computer and internet services</td>
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</tr>
<tr>
<td>5.</td>
<td>Binding(3 copies)</td>
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<tr>
<td>6.</td>
<td>Transport services</td>
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<tr>
<td>7.</td>
<td>Miscellaneous</td>
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<td>TOTAL COST</td>
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## APPENDIX V: TIME PLAN

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</tr>
</thead>
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<td>Identification of research problem and consolidation of literature</td>
<td>2 months</td>
<td>April – May</td>
</tr>
<tr>
<td>Development of proposal</td>
<td>2 months</td>
<td>June – July</td>
</tr>
<tr>
<td>Designing development of research instruments</td>
<td>1 month</td>
<td>August</td>
</tr>
<tr>
<td>Pilot survey and compilation</td>
<td>1 month</td>
<td>September</td>
</tr>
<tr>
<td>Data collection</td>
<td>2 months</td>
<td>October – November</td>
</tr>
<tr>
<td>Data analysis</td>
<td>1 month</td>
<td>November</td>
</tr>
<tr>
<td>Writing of 1st draft</td>
<td>1 month</td>
<td>December</td>
</tr>
<tr>
<td>Submission of 1st draft to graduate school</td>
<td>1 month</td>
<td>January -2014</td>
</tr>
<tr>
<td>Preparation of final draft</td>
<td>2 months</td>
<td>February – March 2014</td>
</tr>
<tr>
<td>Submission of final draft to graduate school</td>
<td>1 month</td>
<td>April- 2014</td>
</tr>
</tbody>
</table>
APPENDIX VI: AUTHORIZATION LETTER

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacost.go.ke
Website: www.nacost.go.ke
When replying please quote
Ref: No.

NACOSTI/P/14/4097/2746

Annette Wayua Wambua
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Mobilization and allocation of teaching learning resources among subjects in public secondary schools in Makukeni County, Kenya,” I am pleased to inform you that you have been authorized to undertake research in Makukeni County for a period ending 30th September, 2014.

You are advised to report to the County Commissioner and the County Director of Education, Makukeni County before embarking on the research project.

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

DR. S. K. LANGAT, OGW
FOR: SECRETARY/CEO

Copy to:

The County Commissioner
The County Director of Education
Makukeni County.
APPENDIX VII: RESEARCH PERMIT

THIS IS TO CERTIFY THAT:

Ms. Annette Wayua Wambua of Kenyatta University, 33-90138

has been permitted to conduct research in Makueni County

on the topic: MOBILIZATION AND ALLOCATION OF TEACHING LEARNING RESOURCES AMONG SUBJECTS IN PUBLIC SECONDARY SCHOOLS IN MAKUENI COUNTY, KENYA,

for the period ending: 30th September, 2014

Applicant

Signature

Secretary

National Commission for Science, Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do so may lead to the cancellation of your permit.

2. Government Officers will not be interviewed without prior appointment.

3. No questionnaire will be used unless it has been approved by the Government Ministries.

4. Excavation, filming and collection of biological specimens are subject to further permission from the Government Ministries.

5. You are required to submit at least two (2) hard copies and one (1) soft copy of your final report.

6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

RESEARCH CLEARANCE PERMIT

Serial No. A: 2977

CONDITIONS: see back page.