

**FACTORS INFLUENCING INFRASTRUCTURE DEVELOPMENT IN  
PUBLIC PRIMARY SCHOOLS IN KATHONZWENI DIVISION, MAKUENI  
COUNTY, KENYA**

**Ojwang Josiah Meshack**

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Degree of Master of Education in Educational Administration**

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## **DECLARATION**

This project report is my original work and has not been submitted for the award of a degree in any other university.

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Ojwang Josiah Meshack

E55/75331/2012

This project report has been submitted for examination with our approval as University Supervisors

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Dr. Ursulla A. Okoth

Senior Lecturer

Department of Educational Administration and Planning

University of Nairobi

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Prof. Genevieve Wanjala

Department of Educational Administration and Planning

University of Nairobi

## **DEDICATION**

This work is dedicated to my wife Edna Ojwang and my children Liz Ojwang, Dorraine Ojwang and Blessing Ojwang.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AEO</b>	Area Education Officer
<b>ASAL</b>	Arid and Semi-Arid Lands
<b>BOM</b>	Board of Management
<b>DEO</b>	District Education Officer
<b>DQASO</b>	District Quality Assurance and Standards Officer
<b>EFA</b>	Education for All
<b>KESSP</b>	Kenya Education Sector Support Programme
<b>MDG</b>	Millennium Development Goal
<b>MOE</b>	Ministry of Education
<b>MoEST</b>	Ministry of Education, Science and Technology
<b>MTP</b>	Medium-Term Plan
<b>NGO</b>	Non – Governmental Organization
<b>PA</b>	Parents’ Association
<b>PEDP</b>	Primary Education Development Plan
<b>PPS</b>	Presidential Press Service
<b>PTA</b>	Parents’ Teachers Association
<b>SMC</b>	School Management Committee
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNICEF</b>	United Nations Children's Fund
<b>UPE</b>	Universal Primary Education

## **ABSTRACT**

The main purpose of this study was to investigate the factors influencing infrastructure development in primary schools in Kathonzwani Division, Makueni County. The study further examined how adequacy of funds, community, policies and regulations and stakeholder attitude affected infrastructure development in primary schools in Kathonzwani Division. A descriptive survey research design was used in this study. The sample consisted of 27 head teachers, 27 Board of Management and 27 PTA Chairpersons, DEO (1), DQASO (1) and AEO (1). In total, the sample size was eighty four (84). Both census and purposive sampling procedures were used to arrive at the sample of respondents. Instruments used included questionnaires for Head Teachers and interview guide for the B.O.M. and P.T.A chairpersons, AEO, DQASO and DEO and observation checklist. Data was analyzed using descriptive statistics, employing both quantitative (questionnaires) and qualitative (interview guide) approach. From the analysis, the following findings were made: The methods used to raise money for infrastructure development in schools include parents' contribution, government allocation and CDF funds. The role of community members in infrastructure development include providing labor materials, repairing and maintenance, provision of finances and monitoring projects. However, these roles are affected by poverty, level of education and awareness and misplaced priorities. Tight policies such as those for procurement have been noted as to delay the process of obtaining materials to be involved in the infrastructure development process. Moreover, the policies do not show different roles that different stakeholders should play in the development of infrastructure in schools. Most of the stakeholders have a negative attitude towards involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not them. The following recommendations are given: Clear roles of community, government and other partners to be developed by the MoE, more stakeholders to be involved in the infrastructure development process in schools, awareness creation to be made on the need for full community involvement in infrastructure development. There is need for more money to be allocated by the government to support infrastructure development. There is also need for policy issues to be revised so as to guide clear guidelines in infrastructure development as well as avoiding the delays which are experienced in the procurement process of materials for infrastructure development.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the study**

Globally, educating citizens is a key responsibility of the government and a main factor in development. Indeed education is seen as the principal institutional mechanism for the development of human capital (Nsubuga, 2003). Education is actually an investment for a country; hence there is a positive correlation between education and economic development (Rhodes & Bell, 2004). The United Nations Declaration on Human Rights (1948) recognizes education as a human right and points out that it shall be free. This is further buttressed by the world conferences on Education for All (EFA) in Jomtien (1990) and Dakar (2000) which emphasized the principles that every child has a right to education. The millennium development goals (MDGs) lay considerable emphasis on education in terms of achieving Universal Primary Education (UPE). Since all have a right to education, the issue of access has necessitated expansion of existing schools and putting up new physical facilities in schools. Setting up learning structures is therefore a matter of priority to government's world over.

In South Africa, while some schools have excellent infrastructure, others lack basic services like water and sanitation. It is noted that schools in what were formerly black areas in the apartheid period generally suffer poor infrastructure and there is

backlog of physical school development (Gibberd, 2007). Gibberd (2007) further denotes that South Africa is struggling with prioritizing which schools should be given more emphasis in terms of allocating resources to ensure that the overall performance of school infrastructure is improved.

Another country in Africa which has been on the map concerning the infrastructure development issues in schools is Nigeria. The capacities of schools in Nigeria are not in a position to fully handle the ever increasing enrollment of learners. Issues such as inadequacy of funding, infrastructure and lack of manpower or community involvement have been raised as to affect the quality of education in the schools (Solutions 4 Africa, 2015). Moreover, various researchers (Olagunju, 2011; Zubairu, 2010; Isyaku, 2003) have also pointed that lack of proper maintenance due to insufficient policies have contributed to the prevalence of poor infrastructure in most of the secondary schools in Nigeria. To address the issue of infrastructure in schools, the government has tried to come up with some policies or initiatives to encourage infrastructural development so as to enhance the overall education process in schools.

The issue of infrastructure among schools is also evident across various countries in East Africa. Countries such as Tanzania, Uganda, Burundi and Rwanda have been highlighted by various researchers concerning the crumbling conditions of infrastructure in schools. This has also been attributed as to influence the incorporation of various developmental programs and curriculums in the school

inclusive of ICT (World Bank, 2007). Lack of investments or funds, attitude, policy related issues among many others have been raised as to contribute to the crumbling conditions of infrastructure in the schools.

In Kenya, the state of infrastructure in many schools still remains wanting. It may be observed that the state of school infrastructure in Kenya is not anywhere near adequate as thousands of pupils learn in dilapidated classrooms or no classrooms at all and schools lack basic facilities like toilets (Daily Nation, 19 March 2014). Indeed even before Free Primary Education (FPE) was introduced, schools barely had enough infrastructure. With the advent of FPE, the available school facilities simply became overstretched since the issue of infrastructure was glossed over as more children trooped to schools. Children began to learn under trees and in makeshift classrooms, whereas sanitary facilities such as toilets and water supply became overstretched. For instance, The United Nations Children's Fund (UNICEF) (2010) found that on average, 38 male pupils share a toilet and 32 female share a toilet in Kenya's public primary schools. This does not meet even the government's own recommendation of one toilet for 25 girls and one for 30 boys.

Kenya's development blueprint, Vision 2030, also recognizes the need for proper priority towards school physical infrastructure. In its medium-term plan (MTP) for 2008-2010, education was identified as one of the eight sectors that would contribute to the national development under vision 2030. One of the identified flagship programmes was attainment of education for all by 2015. MTP emphasized that the

government would develop an infrastructure programme to rehabilitate schools (Vision, 2030). Apart from these, there is need for accountability to make the infrastructure funding effective. In January, 2010, the Presidential Press Service (PPS) reported that the then president of Kenya, Mwai Kibaki asked parents to demand accountability for the funds given or distributed to schools. The president noted that the funds were meant for development of local schools and creation of an environment conducive for learning.

School infrastructure to a large extent is instrumental in achievement of education goals. Classrooms, offices, teachers room/staff room, play fields and toilets are all basic requirements essential for the smooth functioning of the school. Head teachers and School Management Committees (SMC) are tasked with developing and maintaining infrastructure in their schools. Raising funds for infrastructure development is therefore a key management function of the school head teacher. The head teacher has a duty to ensure that school infrastructure facilities are available and kept in tidy state since this is an important part of the provision of education (Mbiti, 2007).

Public primary schools in Kathonzi division, just like in other parts of Kenya, are expected to have the entire recommended infrastructure to facilitate proper learning and for the comfort of pupils and teachers. While it is the desire of the head teachers to ensure that their schools are adequately equipped, many schools are inadequately equipped in terms of infrastructure development. There are children learning in

crowded classrooms, classrooms in many schools are dilapidated and poorly maintained and some of the structures are improvised for use as classrooms, offices or toilets.

The Kathonzweni District Education Officer Report (2012) captured the wanting state of infrastructure in the district and narrowed down to the ability of head teachers to raise funds for school infrastructure. The report indicates that many head teachers had tried to mobilize school funds for infrastructure development but complained of many difficulties such as competition for the available donors, priority to food and learning materials such as books, lack of cooperation from parents or even Boards of Management. The DEO report also explains that head teachers also complained that some parents and community members were unwilling to contribute to school infrastructure because they understand that primary education is free, thus they do not need to pay anything in school.

Infrastructural issues have also been associated poor quality of education being provided in the public primary schools. Parents and teachers among many other stakeholders have been trying to come up with strategies to improve the quality of education provided in the public schools. Some have been in the forefront in coming up with approaches targeted towards improving the school conditions and especially the quality of infrastructure. A question that however remains among many individuals and researchers is how can resources be mobilized in schools for infrastructural development practices? And if there are resource mobilization

practices, what then are the factors affecting infrastructural development in primary schools? All these questions form a key component of this study. As such, the researcher examined the factors which influenced infrastructure development. Some of the variables which the study examined include the role of the community, availability of funds as well as policies.

## **1.2 Statement of the problem**

Physical infrastructure in public primary schools in Kathonzwi division has been in a bad state. One may observe that there are inadequate facilities such as classrooms, sanitation facilities and poor kitchen conditions among many others. Moreover, the playgrounds in most of the schools are in a poor state and thus pose a challenge to the security of the children while in the playground. The capacity of school facilities cannot sustain the increased enrollment of the pupils which has largely been influenced by the introduction of Free Primary Education (FPE). Head teachers in the area have been trying their level best in promoting infrastructure development to schools but all this has been in vain. As such, this has raised question among various stakeholders in the educational sector on what exactly are the challenges which are affecting infrastructure development in public primary schools. This question formed the general objective and purpose of this study.

On the other hand, there are a number of studies (Gaduh, 2012; Ayogu, 2007; MOE, 2005; Crampton and Thompson, 2003) which have been carried out with respect to resource mobilization and infrastructure development. For instance, the study by

Ministry of Education (MoE) (2005) emphasized on planning, accountability for resource use and community participation through empowerment in resource mobilization. However, most of these studies have had their own limitations which vary from geographical coverage to the methodological approaches. This study on the other hand, investigated factors affecting infrastructure development in primary schools in Kenya. Hence, there was need for this study to be carried out to investigate the factors affecting infrastructure development in primary schools in Kathonzwani Division, Makueni County, Kenya.

### **1.3 Purpose of the study**

The purpose of this study was to investigate the factors affecting infrastructure development in primary schools in Kathonzwani Division, Makueni County.

### **1.4 Research objectives**

This study was guided by the following research objectives:

- i. To establish the extent to which adequacy of funds influence infrastructure development in primary schools in Kathonzwani Division
- ii. To assess the extent to which policies and regulations influence infrastructure development in primary schools in Kathonzwani Division.
- iii. To determine how community involvement influence infrastructure development in primary schools in Kathonzwani Division.
- iv. To examine how parent attitude influence infrastructure development in primary schools in Kathonzwani Division.

### **1.5 Research questions**

The following research questions were used to guide the study:

- i. How does the adequacy of funds affect infrastructure development in primary schools in Kathonzwani Division?
- ii. What are the effects of policies and regulations on infrastructure development in primary schools in Kathonzwani Division?
- iii. How does the community involvement affect infrastructure development in public primary schools in Kathonzwani Division?
- iv. How does parent attitude influence infrastructure development in primary schools in Kathonzwani Division?

### **1.6 Significance of the study**

This study is hoped to be of significance to various stakeholders in the educational sector. These stakeholders include pupils, head teachers, parents, the government, community members and policy makers. Pupils are hoped to be the key beneficiaries of this study. Through the recommendations, they will be able to have a good and conducive learning environment that comprises of well furnished and safe infrastructure to use. Moreover, they will also be reinforced on the roles that they can play to facilitate the maintenance of the available infrastructure in the school.

The head teachers, PTA and BOG members are also expected to benefit from the findings and recommendations of this study. They will first be enlightened on the various factors such as adequacy of funds, policies and regulations, community

involvement and parents' attitude affect infrastructure development in the school. Moreover, through the recommendations, they will be provided with techniques that they may use to overcome these challenges and thus facilitate effective infrastructure development in the school. The community members will also benefit from this study. They will be in a position to learn how their involvement affects the development of infrastructure in schools. Hence, they will be encouraged to put more efforts in supporting head teachers, teachers, parents and the government in general in facilitating infrastructure development in schools.

The government through the Ministry of Education Science and Technology (MoEST) are also hoped to benefit from this study. Establishing the major challenges facing infrastructure development, MoEST is expected to support the head teachers to improve the quality and quantity of infrastructure in schools and thereby improving the learning environment. Through this study, the assessment results can be guideposts that would help policy makers to restructure the current policies as well as develop new policies which may help in supporting infrastructure development in schools. Moreover, the policies can also be restructured so as to create an easy flow in the procurement processes of materials required for infrastructure development in the schools.

This study is also expected to contribute to general knowledge on the areas of infrastructure development in schools in the third world countries. The research will provide adequate, relevant and more current information on how community

involvement, policies and regulations, parents' attitude affect infrastructure development in public schools in Kenya.

### **1.7 Limitations of the study**

According to Kombo (2006), limitations refer to the hurdles a researcher anticipates over which they have no control. Kathonzwani Division has schools which are far apart and many are not served by any form of public transport due to the poor state of the roads. In some cases, reaching school may require hiring of motorcycle transport and it may therefore take long to reach many schools quickly. This was tackled by planning well and arranging for advance transport as may be necessary. Another limitation of this study is that it was only carried out in one district. Thus the information obtained may differ from other districts in the country.

### **1.8 Delimitations of the study**

Delimitations are the boundaries of the study in terms of geographical coverage (Oso and Onen, 2009). The study was conducted in public primary schools in Kathonzwani Division, Makueni County, Kenya. The respondents were head teachers from the public secondary schools in Kathonzwani Division, BOM and PTA chairpersons, AEO, DQASO and DEO officials. Head teachers from private schools in the division did not form part of the respondents because their management policies differ from one school to another and their funding methods are also not similar to those of public schools.

## **1.9 Basic assumptions of the study**

The study was carried on the assumption that:

- i) Head teachers were capable of identifying their roles in infrastructure development including pointing out challenges and expressing their opinions on alternative approaches of raising funds.
- ii) Respondents would be willing to participate in the study and engage in giving honest responses to the questions that the researcher seeks to answer.

## **1.10 Definition of key terms**

**Adequacy of funds** refers to the availability of financial resources required by public primary schools for infrastructure development.

**Community involvement** refers to the extent to which the members of the society willingly engage in infrastructure development processes in public primary schools.

**Challenge** refers to any difficulty experienced by head teachers as they raise funds for developing school infrastructure

**Influence** refers to what prompts the head teacher to seek funds mobilization for infrastructure development in their schools

**Infrastructure** refers to the physical facilities in the school such as classrooms, teachers' houses, staffroom, offices, water systems, kitchen and toilets.

**Parents' attitude** refers to parents' perception of their responsibilities towards infrastructure development in public primary schools.

**Policies and regulations** refer to the mechanisms and principles put in place to aid in the infrastructural development processes in public primary schools.

**Public primary school** refers to a school that is maintained at public expense for the education of the children of a community or district and that constitutes a part of a system of free public education offered by the Government of Kenya, and guided by the national curriculum in offering instruction to pupils.

**Resource** refers to a source of supply, support, or aid, especially one that can be readily drawn upon when needed.

### **1.11 Organization of the study**

The study was organized into five chapters. Chapter one covered the background to the study, statement of the problem, purpose of the study, limitations of the study, delimitations of the study, objectives of the study, research questions, significance of the study, some assumptions of the study, definition of significant terms and organization of the study. Chapter two was concerned with literature review. It contained infrastructure development in schools, influence of funds on infrastructure development, influence of government policies on infrastructure development, community's involvement in infrastructure development, parents' attitude and infrastructure development, summary of literature review, theoretical framework, conceptual framework and. Chapter three discussed the methodology of this study. This presented the research design, the target population, sample size, sampling procedures, research instruments, validity of the instruments, data collection procedures, data analysis techniques and ethical considerations. Chapter four presented the analysis presentation and discussion. Chapter five covered the summary, conclusions and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents the related literature reviewed on the factors influencing resource mobilization for infrastructure development. The literature reviewed is obtained from online articles, books and journals among many others. The chapter is presented based on the research objectives.

#### **2.2 Infrastructure development in schools**

Infrastructure development continues to be an issue raised by various stakeholders not only in the economic sector any given country but also in the educational systems. With the increased enrollment, school administrations find it a challenge to provide enough facilities to cater for the educational needs of the pupils. It may be observed that in sub-Saharan Africa (inclusive of Kenya) and the poorest countries in Asia, the challenge of providing adequate primary education facilities is huge. To meet the Education for All target of providing universal access to primary education worldwide it has been estimated that up to 10 million classrooms need to be built at a cost of US\$72 billion (World Bank, 2003).

In sub-Saharan Africa alone it is estimated that up to US\$30 billion will be required to address the shortfall in provision of suitable and safe learning environments. Typically, classrooms are overcrowded, many buildings and other facilities are

inadequate, sites are poorly planned and there is little maintenance. This situation is not conducive to good teaching and learning (Bonner, Kalra, Leathes, Das & Wakeham, 2010). According to these observations, it is paramount for Kenyan government among various other stakeholders to put more efforts in ensuring that not only policies are designed to promote infrastructure development, but the who society and community at large are reinforced and motivated to take part in the infrastructure development process in schools.

Where there are limited resources it is important that they are they targeted efficiently and equitably. This is often not the case and facilities are not constructed in a way that effectively matches demand. Even where average pupil/classroom ratios are high, it is not uncommon to find schools where there are unused or underused facilities. In Guinea, as many as 16% of classrooms were recorded as unused in 2000 and in Madagascar the number was about 7% in 2005. This is because of a tendency to construct schools with a standard number of classrooms rather than with the number of classrooms required by the actual and planned enrolment. The provision of smaller schools in rural communities can result in more efficient use of resources, reduce traveling distances and increase access (Theunynck, 2003).

Infrastructure development in schools not only entails the construction of new facilities but it also includes repairs and maintenance of the already existing infrastructure. In most of the primary schools, no proper mechanisms have been set

to aid in infrastructure repair and maintenance. As such, old facilities continue to deteriorate and thus posing insecurity risks to the learners. It may be noted that investments in repairs and maintenance are very cost effective but have historically received little priority or attention from governments or development partners. The current deficit of classrooms is due in part to poor maintenance of the existing building stock. In order to obtain the maximum value for money from educational facilities it is essential that their lifecycle costs are minimized and that they remain serviceable throughout their life (Bonner, Kalra, Leathes, Das & Wakeham, 2010).

A study carried out by Lawther (2009) on the review of infrastructure development approaches in the Solomon Islands indicated that infrastructure development projects in schools were being faced by a number of issues. These included the quality of construction and design, timeliness of delivery, cost, coverage, community empowerment, implementation and future maintenance. Strong community support for schools and education was offset by policy implications due to “fee free” education; the under-utilization of existing infrastructure space and land issues regarding education infrastructure and communities’ dependence on foreign aid.

### **2.3 Influence of funds on infrastructure development**

Financing of education refers to the funding of school conditions and resources to meet quality standards, spending on education inputs to achieve learning goals, allocating adequate revenue flow to enhance performance and monitoring the budgeted resources for education. In 1974, the World Bank report on education

suggested a number of broadened sources of revenue for education beyond the limits of regular government budgets which included various methods by which those who received education could pay greater share of its cost (Sifuna, 1990). It is with these trends that the infrastructure was somehow neglected (Olembo, 1985). This state of affairs was to manifest greatly with the introduction of free primary education (FPE) in Kenya in 2003. At one-point three million new pupils entered into the country's primary schools overwhelming school infrastructure (UNICEF, 2005). The 2003 school facilities census estimated that, nationwide, there was a shortfall of 43,000 classrooms although was not clear what proportion of these are existing semi-permanent (MoEST, 2007).

Funding for physical infrastructure in primary school, has over the years been part of the overall school financing. Physical infrastructure funding will involve the funds or efforts expected on building, land, physical environment, furniture and black wall either in form of repair and maintenance, construction and infrastructure management. Primary school physical infrastructure funding has been a challenging undertaking especially due to scarcity of resources and capacity constraints (Elcher, 1989).

Funding for physical infrastructure is by communities, parents and government. Community funding is very effective in cases in which the community desires to make future sacrifices to satisfy the practical needs. External help should just be a supplement (Theunynck, 2003). One of the most significant external funding bodies

for education is the World Bank which in 1963 issued its first educational loan targeting infrastructure (World Bank, 1988).

Funding for school facilities in Africa was greatly emphasized at independence (Otiende, Wamahiu & Karugu, 1992). However the cost of providing it was found to be three times higher compared to the developed world. This led to self-help where parents became more responsible for capital investments in education (Bogonko, 1992). These trends led to infrastructure neglect. This was manifested greatly with the introduction of FPE in which the enrollment of pupils in school overwhelmed the infrastructure available. This study intends to investigate how funds and grants influence the mobilization of resources used for physical infrastructure development in public primary schools in Kathonzweni Division.

#### **2.4 Community involvement and infrastructure development in primary schools**

After independence, most African countries concentrated their attention on expansion of educational facilities to achieve access and equity (Otiende, Wamahiu & Karugu, 1992). In 1961, a joint conference organized by the UNESCO (United Nations Educational and Cultural Organization) and United Nations Economic Commission for Africa noted that the cost of producing any quality education was three times higher in developing countries than the developed. It was suggested that education cost could be reduced by for example, greater help in self-help building. Many African countries had experienced deficits in that; they had to implement the Addis Ababa conference. In 1960s communities, parents and local authorities were

principally responsible for capital investment in primary education throughout East Africa (Bogonko, 1992). The communities' contributions ranged from poles, thatch cash and labour. In many parts of the world especially the developing world, funding primary school education infrastructure has been largely dependent on local community. For instance in Burma, the Parents' Teachers Association (PTA) has a major input in financing education (Black & Scendlen, 1980).

A survey of 1972/73 by the Ministry of Education there revealed that the PTAs provided for 21.2% of the cost of building 63.8% of the cost of furniture and equipment, 63.4% repairs and 87.7% of general contingencies. In Malaysia, it is the parents associations (PAs). The role of the parents associations is primarily that of material support; for example, contributing to building of school halls, canteens and adding classes. Thinh (1991) observes that the PAs have come to play a central role in construction and maintenance of building and facilities in association with the local education councils. PAs persuade and encourage local production and trading establishments in building educational facilities. In Vietnam, most primary schools have been built by people through the PAs and the local educational councils. The association is also involved in the provision of desks, benches and in teaching aids (Thinh, 1991).

A close connection was found between the presence of religious organizations and the community action activities. This has been attributed to the religious motivated sentiments of altruism and philanthropy (Grier, 1997). Salomon and Anheier

postulated that Christianity and particularly Protestantism permit the flourishing of the community actions because of its emphasis on individualism and its strong independence from state control. Gaduh (2012) also found that different religions had different impacts on the rise of the community action depending on the weight they assigned to charitable acts in terms of time and resources, supporting individual action, commitment to institution building and their relationship with the country.

Ministry of Education (2009) comments that community contribution either in terms of financial resources depending on the economic level or in kind is required to support government and other pertinent contributions. Communities are expected to provide firewood, employ a cook, provide kitchen utensils, cooking water and monitor the utilization of the project's funds, as part of their contribution (MOE, 2009). This study will seek to find out the roles communities play in infrastructure development in primary schools in Kathonzweni Division.

## **2.5 Government policies and infrastructure development in primary schools**

Countries and any of its operations are governed by different regulations and policies put in place. The same also applied in the education sector. Through the ministry of education, the government has been able to set up policies which guide the way things are run in the various schools in the country. The status of infrastructure development in schools has also been captured within the government policies and regulations in the educational sector. It can however be observed that despite the prevalence of polices and regulations still the status of physical infrastructure in

some of the public primary schools may not be up to standards. This may be due to a number of issues such as vandalisms, corruption in the infrastructure development projects and various stakeholders not taking their responsibility seriously among many others.

There are various specifications which have been provided when it comes to physical infrastructure in schools. According to UNESCO (2005), appropriate and sufficient building, child friendly, safe environment enhance child rights. The Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoE, 2005). This emphasizes the importance of complying with Education Act (Cap 211) and Public Health Act (Cap 242). The manual discusses size and number of physical infrastructure for resistance and recommends the need for sufficiency. According to these acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users. However, one may find that the quality of such infrastructures in the respective public schools is inadequate. Moreover, the available facilities are always in poor conditions.

The government policies and regulations also specify that sanitation infrastructure must be safe and built to the required standards. Pit latrines should be built at least 10 metres away from tuition blocks. When ablution block is attached to the other

buildings a high degree of cleanness must be maintained. Pit latrines should be at least 15 metres away from a water point. In mixed schools, girls' sanitation facilities must be separate and offer complete privacy. In construction of sanitation facilities, the following must be observed. The first thirty learners, 4 closet holes. A maximum of 270 learners: one closet for thirty learners. In all schools, appropriate provision should be given to learners with special needs (MoE, 2005).

Various government policies which have been put more emphasis in the Kenyan schools have not solely addressed on the areas of infrastructure development. For instance, one good policy is that of Free Secondary Education (FSE) policy. This policy has been implemented with a main objective of ensuring that deserving children from poor family backgrounds do not miss out on secondary education. as such, this policies misses out on addressing how infrastructures may be put in place so as to support those children from poor backgrounds to accessing education in schools that have good infrastructure and a conducive learning environment (Mbayah & Maende, 2011).

According to an observation made by Republic of Kenya (2010) and Chiuri and Kiumi (2005), poor educational policies which lead to unchecked arbitrary increase of school fees and other levies like teachers motivation, purchase of school bus among others in schools poses a challenge in to the government of Kenya in effectively implementing the FSE policy as well as ensuring that it provides an avenue for infrastructure development consideration in the respective schools.

As it has been reviewed in this section, there are indeed a number of provisions which have been made by the government concerning the state of infrastructure in primary schools. However, one question that still lingers in individuals' minds is, what then is the issue that has led to the prevalence of poor infrastructural development in schools despite government policies having been put in place to address on the issue? Moreover, there are no much empirical studies which have been done on the influence government policies on infrastructure development in schools. As such, this study intends to examine how then the government policies are influencing infrastructure development in primary schools in Kenya.

## **2.6 Influence of attitude on infrastructure development**

The attitude that different stakeholders have may influence the extent to which infrastructure may be developed in schools. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. Multistage random sampling was followed in collection of data from 572 students of different schools located in 6 high and 6 less literate rural blocks in 6 different districts of West Bengal. Four questionnaires were developed to assess (a) Demographic and socio-economic conditions (b) Attitude towards school infrastructure (c) School attendance motivation and (d) Academic performance of students. Nine attitudes (cleanliness, safety, comfort, adequacy, exploring, reliability, easiness, equal opportunity, willingness to participate in school activities) towards school infrastructure were initially conceptualized and accordingly one highly reliable (Kuder Richardson reliability = 0.90) 68-item questionnaire was developed.

Results revealed that attitude varies with differences in religion, socio economic status, districts, literacy rate of blocks, and with available school infrastructure facilities. The study also found out that attitude determines one's motivation to use infrastructure.

The involvement of community members in the infrastructural development is also a key element which may be largely influenced by the type of attitude that they have towards their responsibilities. A study by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure. It was shown that if the public positively viewed the infrastructure as being beneficial, they directly engaged themselves in developing the infrastructure and vice versa.

Another study was carried out by Gbolagade, Omotesho, Komolafe, Oni & Adereti (2014) to examine rural youth participation in infrastructural development in Isin local government area of Kwara State, Nigeria. Data were collected with the aid of a questionnaire, which was analyzed using frequency count and percentages. Chi-square analysis was used to test the hypothesis of significance between the socio-economic characteristics and the level of participation in infrastructural development. Besides, in infrastructural development as well as the associated constraints which include finance, availability of materials, technical knowledge and time, attitude was raised as a key issue which influenced the participation of youth in infrastructure development. The limitation of this study was that it only focused on

infrastructural development in the community and thus there is need for the current study to be done to investigate on how attitude influence infrastructure development in schools.

It is widely recognized that parents can provide valuable help for their children by showing that they are interested in their school work and see the value of what they study at school. There is strong evidence that this form of support can have a real and positive effect on performance of children at school and, therefore, on their future (The Scottish Office, 2002). The same concept applies also when it comes to parents showing interest on the learning environments of their children. The interest shown is an indication of positive attitude towards infrastructure development. Lack of interest among parents in the infrastructure of schools that pupils use in their learning process may influence their extent of involvement in the development of infrastructure in schools.

Moreover, the attitude of parents in the development process of infrastructure is very important. Through positive attitude, parents may get themselves involved in various ways. These ways include but may not be limited to being involved in decision making processes at school level, collaborating with the community by identifying and integrating resources and services from the community to strengthen school programmes and infrastructure development, family practices and student learning and development (Nandango, Obondoh & Otiende, 2005).

## **2.7 Summary of literature review**

The literature review has shown the importance of effectiveness of physical infrastructure funding in primary schools has shown that any study of school funding has to take into account school physical infrastructure (Crampton & Thompson, 2003). The review has also attempted to establish a link between a school's physical infrastructure funding and quality education. Studies also show that effective school physical infrastructure funding will positively affect school quality (American Federation of Teachers (AFT), 2008). However, most studies (UNESCO, 2010; Crampton & Thompson, 2008), have concentrated on the effect of infrastructure funding on specific learning outcomes for example, teacher and student motivation. The literature review also suggests that funding for physical infrastructure in school is a good investment that gives positive outcomes (Mabula, 2011). However, there is little that has been done to study infrastructure development in primary schools, with more specificity to Kathonzwani Division.

## **2.8 Theoretical framework**

This study was guided by the Reinforcement theory of B.F. Skinner developed in 1953. This is a fundamental learning theory based on the premise that it is believed that behaviour is a function of its environment. Positive school environment includes the infrastructure and other facilities which make the learning environment better. This is positive 'reinforcement' which supports learning.

There are a number of strengths which have continuously supported the prevalence of reinforcement theory in many organizations. These strengths include the fact that it Provides clues to motivation, keeps employees involved, it is easily applied in any given setting and Impressive research support (Redmond, 2010). Despite the strengths, there are a number of challenges which are faced in the application of the theory. These challenges/weaknesses include difficulty in identifying rewards/punishments, hard to apply to complicated forms of behavior, imposes on freewill and it effectively often expires. Moreover, reinforcement theory also disregards internal motivation.

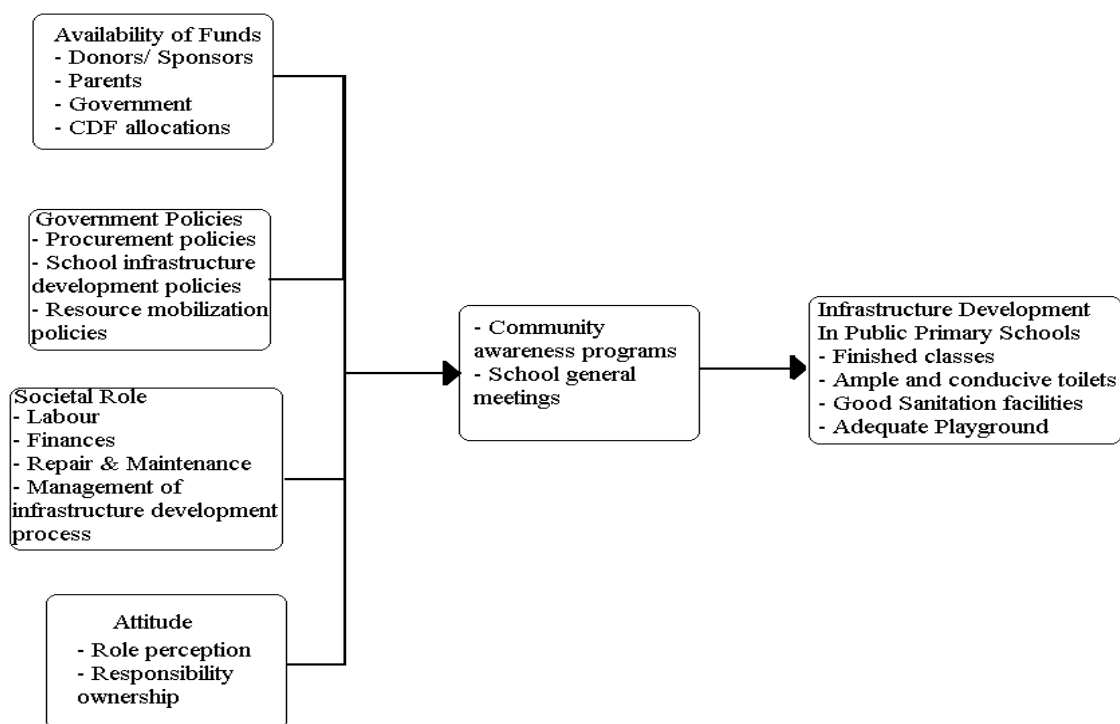
In the context of this study, reinforcement theory was found to be much more relevant. The theory was considered appropriate because the learning environment created by having suitable infrastructure in school forms part of a conducive environment for the learners. This is realized in the form of appropriate classroom, sufficient desks, toilet facilities, a kitchen to cater for their meals and playground for physical fitness and even spacious and well-tended lawns where children will relax during their free time form class.

Moreover, when the head teacher ensures that such facilities are available, they are involved in helping to set a suitable environment for nurturing good behaviour which is expected to translate into better performance by children. The good learning environment as a reinforcement factor serves to nurture and support good behaviour for the pupils. In the absence of such facilities, the learning environment is

compromised and the learners may not have sufficient support to influence them towards the desired behaviour change that the school should build in them.

## 2.9 Conceptual framework

This study conceptualizes that the dependent variable depends upon various other independent variables. Development of infrastructure in schools has been considered as the dependent variable which depends upon various independent variables which include availability of funds, government policies, role of the community and stakeholders' attitude. These processes considered in the mobilization of resources for funds include fundraisers, grants, labour, school fees and sponsorships. The relationship between the variables is as summarized in Figure 2.1.



**Figure 2.1: Factors influencing infrastructure development in public primary schools**

As it has been conceptualized in this study, there are various factors which affect infrastructure development in public primary schools. These include availability of funds, government policies, societal role and attitude. To begin with, schools may try to evaluate the amount of funds they have and see whether it can facilitate the process of infrastructure development in schools. Without funds, schools may not develop new or even repair the already available physical infrastructure. On the other hand, the government policy provision also does influence the development of infrastructure especially in public schools. These schools are always under the management and control of the government. As such, if the policies formulate do not address the infrastructure development in the school, no progress will be experienced.

The involvement of society and attitude are two key factors which go hand in hand together. It may be observed that if the society that is inclusive of parents have negative attitude towards infrastructure development in schools, then they will not be involved in the process and vice versa. Moreover, the roles of the societal members which include provision of labor, finances, repair and maintenance may not be fully achieved if the participants have a negative attitude. For these factors to be properly utilized so as to facilitate infrastructure development there are a number of processes which are to be put in place. These include constant community awareness programs on infrastructure development and school general meetings where parents are encouraged to participate in the infrastructure development process. Through this process, the schools are able to improve on infrastructure development in schools.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

This chapter presents the research design, target population, sample size and sampling procedures, research instruments, data collection procedure and data analysis techniques.

#### **3.2 Research design**

Research design is a logical and valuable way of looking at the world (Gall, Borg & Gall, 2003). A descriptive survey research design was used in this study. This design was used because it enables investigation into the subject under study. Gay and Airasian (2000) indicate that descriptive survey design is used on preliminary and exploratory studies to enable the researcher collect information, summarize, present and interpret for clarification purposes.

In the context of the study, the research design enabled the researcher to collect information from various key respondents on the factors influencing infrastructure development in public primary schools in Kathonzweni division. This was through the help of questionnaires, interview guides and observation guide.

#### **3.3 Target population**

This study was conducted in all public primary schools in Kathonzweni division of Makueni County. According to records obtained from the office of the DEO

Kathonzweni district, this division has 27 public primary schools. The target population consisted of 27 head teachers, the DEO, the DQASO and the AEO. Additionally, the B.O.M chairpersons (27) and 27 PTA chairpersons also targeted in the study.

### **3.4 Sample size and sampling procedures**

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda & Mugenda, 2003). This subgroup was carefully selected to be representative of the whole population with the relevant characteristics. Each member or case in the sample is referred to as subject, respondent or interviewees. The sample for this study consisted of 27 head teachers, 27 Board of Management and 27 PTA Chairpersons, DEO, DQASO and AEO. In total, the sample size for this study was eighty four (84).

Sampling is referred to as a process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group (Orodho, 2004). A census sampling method was used in this study to select all head teachers, B.O.M and PTA chairpersons. This sampling method was used in this study owing to the fact that the respondents are few and thus for comprehensive data to be obtained it was necessary to select all of them. In total, 27 head teachers, 27 PTA chairpersons and 27 B.O.M members were selected to participate in the study.

On the other hand, purposive sampling method was used to select the DEO, DQASO and AEO. This sampling procedure was used simply because these respondents held key positions in the education sector in the district and thus they were in a better position of providing adequate, relevant and key information on the area under study. moreover, these respondents were held as key informants in the study.

### **3.5 Research instruments**

This study employed questionnaires, interview guides and an observation checklist.

#### **Questionnaires**

A questionnaire is a research instrument that gathers data on a large sample, save on time, and can uphold confidentiality. According to Lovell and Lawson (1970), questionnaires are widely used in education to obtain information about current condition and practice, and to make attitudes and opinions. Further, Best and Khan (2003) points out that a questionnaire enables a person administering them to explain the purpose of the study and to give meaning of the items that may not be clear. They have the advantage of asking specific questions which call for specific answers. The answers can be classified and the information contained in the responses quantified. In this study the questionnaires was expected to elicit information from head teachers. The questionnaire was structured based on the research objectives.

#### **Interview guide**

Interview guide was used because they yield highest cooperation and lowest refusal rates, offers high response quality and takes advantage of interviewer presence and

its multi-method data collection, which combines questioning, cross-examination and probing approaches (Owens, 2002). The researcher interviewed the Board of Management (B.O.M) and Parent Teacher Association (P.T.A) chairpersons, AEO, DQASO and DEO to elicit information that met the study objectives. The interview guide was semi-structured (with some closed and open ended items) and was divided into two main sections, namely demographic characteristics of the respondents and the factors that influence infrastructure development in public primary schools.

### **Observation checklist**

The researcher also observed the infrastructural facilities and school records to help in assessing their levels of infrastructure development. Observation makes the observer to detach himself from the social setting being investigated and allows him to gain a more objective view of the reality being investigated (Scott & Usher, 2004). Moreover, the checklist was used to assess the quality, quantity and conditions of the infrastructure.

### **3.6 Validity of instruments**

Validity is concerned with establishing whether the instruments are measuring what they are supposed to measure (Gay, 1992). Orodho (2009) defines it as the degree to which a test measures what it purports to be measuring. It is an important characteristic of a scientific instrument. It is correlation of a test with some outside independent criteria which are regarded by experts as the best measure of the trait. Singh (1986) and Orodho (2009) tend to concur that validity is concerned with

general ability. When a test is valid, it means its conclusion can be generalized in relation to the general population. The researcher used peer review of the instruments to test their validity and also sought for expert knowledge of the supervisors to ascertain their validity. Three public schools from the neighboring Mavindini Division were used as a pilot study to pre-test the validity of the instruments.

### **3.7 Reliability of instruments**

Kombo and Tromp (2006) define reliability as the degree to which a test consistently measures whatever it measures. That is, the ability to consistently yield the same results when repeated measurements are taken of the same object under the same conditions (Gay, 1999). To establish the reliability of the research instruments, the researcher carried out a pilot test of the instruments using another similar group with the same characteristics as the one targeted in the study. The reliability of the instruments was computed using Cronbach's Alpha reliability coefficient method. The most common internal consistency measure is Cronbach's alpha, which is usually interpreted as the mean of all possible coefficients.

The data was computed using SPSS computer program to determine Cronbach's reliability coefficient. The respondents for the pilot test were picked from 3 public primary schools from the neighboring Mavindini Division. These schools and the respondents did not form part of the actual study. After filing the questionnaires, they were collected, scored and manually tested for reliability. The correlation coefficient found was 0.8. According to an observation made by George and Mallery (2003), if a

Cronbach's reliability correlation coefficient is greater or equal to 0.7 is obtained then the questionnaires are treated as reliable. As such, the questionnaire was held as reliable. On the other hand, the interview guides and observation checklist were not tested for reliability.

### **3.8 Data collection procedures**

First, the researcher requested for an introductory letter from University of Nairobi. He then sought for a permit from the National Commission for Science, Technology and Innovation (NACOSTI). This was presented to the District Education Officer in charge of Kathonzweni for authority to carry on with research in the study locale. The researcher then visited the schools for introductory purposes and requested for appointment from the head teachers about when to administer the instruments to the respondents.

The questionnaire was administered in person and collected once filled. The researcher also booked meetings with the BoM and PTA chairpersons for the interviews. The interview was conducted in a conducive environment. Moreover, during the distribution of the questionnaires the researcher was also observing the various infrastructures in the school and thus ticking the observation checklist according the prevailing conditions. Lastly, a meeting with the DEO, DQASO and AEO was also organized and the interview conducted. Once the data collection was done, the data was picked and used for analysis.

### **3.9 Data analysis techniques**

Collected data was first checked for completeness before analysis. Data analysis involved both qualitative and quantitative. Quantitative data was analysed using descriptive statistics, which involved a process of transforming a mass of raw data into tables, charts, with frequency distribution and percentages which formed a vital part of making sense of the data (Mugenda, 2003). The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) program and presented using tables, graphs and pie charts and prose form to give a clear picture of the research findings at a glance. The qualitative data was subjected to analysis by synthesizing the responses and thematically arranging them in conformity with the study objectives. This helped the researcher to summarize the information and present them as discussions on infrastructure development in schools.

### **3.10 Ethical considerations**

In this study, the rights of the research participants were ensured. This was done based on ensuring that the principles governing research participants were followed. The principle of voluntary participation which requires that people are not coerced into participating in research was followed. The informed consent of the participants was also ensured by explaining the aim of the study and the procedures involved. The participants' information was confidential. Further the principle of anonymity was also adhered to. The participant remained anonymous throughout the study.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

The chapter is presented based on the following sections: response rate, background information of the respondents, availability of funds and infrastructure development in schools, role of community in infrastructure development, policies and regulation on infrastructure development and stakeholders' attitude and infrastructure development.

#### 4.2 Response rate

This section presents the response rate of the respondents who participated in the study. During data collection, the researcher issued twenty seven questionnaires to the head teachers, twenty seven interview guides to the PTA and B.O.M respectively and one interview guide for AEO, DQASO and DEO respectively. The results are presented in Table 4.1

**Table 4. 1: Instrument response rate**

<b>Respondents</b>	<b>Issued instruments</b>	<b>Received Instruments</b>	<b>Percentage (%)</b>
Head Teachers	27	27	100
PTA	27	25	92.6
B.O.M	27	24	88.9
AEO	1	1	100
DEO	1	1	100
DQASO	1	1	100
<b>TOTAL</b>	<b>84</b>	<b>79</b>	<b>94%</b>

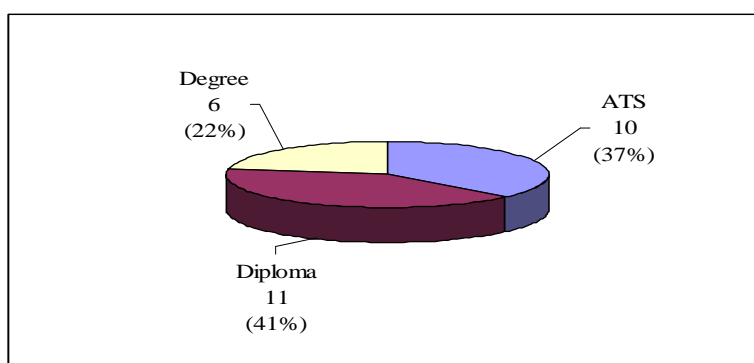
A total of 84 instruments were given to the respondents. However, only 79 instruments were received that had been fully responded to. This translates to a response rate of 94%. This representation is good enough for the data analysis.

### 4.3 Background information of head teachers

The head teachers who participated in this study were given a number of questions for background information. These questions captured elements such as educational qualification, working experience, number of pupils enrolled in schools and the conditions of the available infrastructure in public primary schools.

#### 4.3.1 Highest educational qualification

The head teachers were asked to give their highest educational qualification. The educational qualification was asked so as for the researcher to establish the educational qualification of teachers in schools who are involved in infrastructure development. This was categorized into P1, ATS, Diploma, Degree and Masters Degree. However, only a few academic qualification responses were provided. These are as summarized by Figure 4.1.

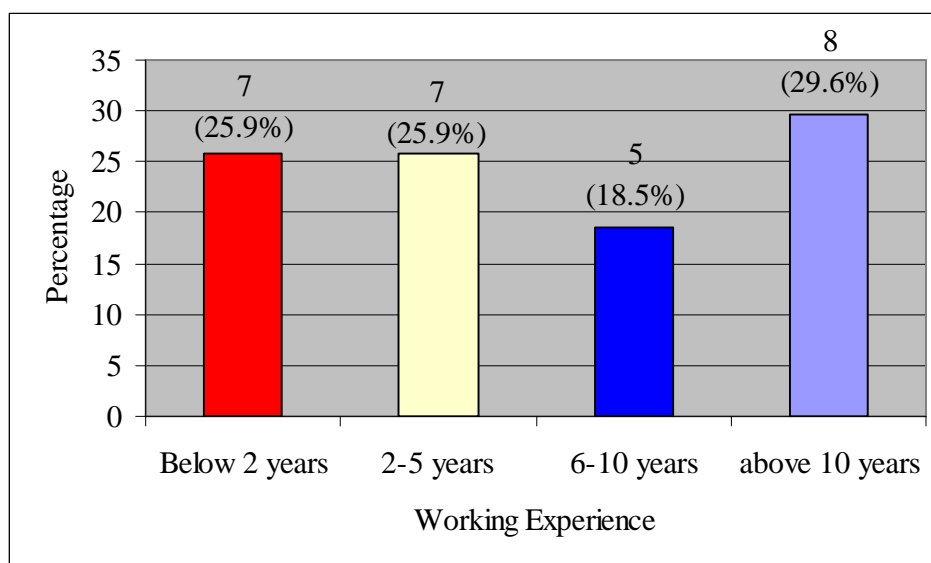


**Figure 4. 1: Distribution of the head teachers by their highest education qualification**

The data in figure 4.1 indicates that majority of the primary school head teachers 11 (41%) had a diploma as their highest educational qualification. Slightly more than a third of them 10 (37%) however indicated that they had been able to achieve a degree as their highest academic qualification.

#### 4.3.2 Working experience

The working experience of the head teachers was also looked into in this study. The working experience of the teachers was looked into so as to establish the period individuals have been involved in the infrastructure development processes in the school. This was categorized into below 2 years, 2-5 years, 6-10 years and above 10 years. The data is presented in Figure 4.2.



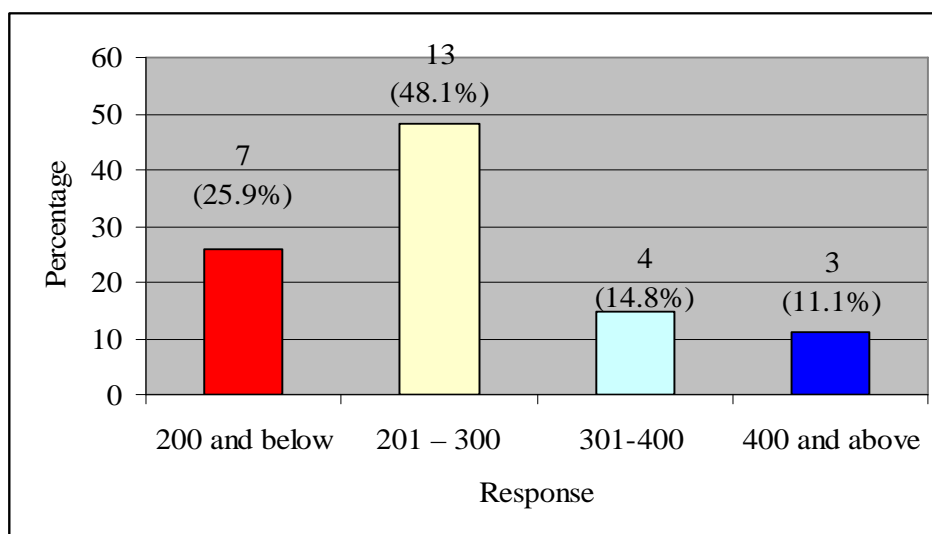
**Figure 4. 2: Distribution of head teachers by their working experience**

The data in figure 4.2 shows that there is an even distribution of head teachers with reference to working experience. Slightly more than half of the head teachers 14 (51.8%) had a working experience of less than 5 years whereas 48.1% of them had a

working experience of more than 6 years. The distributions however show that most of the teachers in the public primary schools indeed have been in the schools for quite a good period to be in a position to facilitate infrastructure development processes in schools.

### 4.3.3 Number of pupils enrolled in schools

The head teachers were further asked to state the number of pupils attending their respective schools. The information or numbers provided were further summarized into the following categories 200 and below, 201-300, 301-400 and 400 and above pupils. The responses are as summarized by the Figure 4.3.



**Figure 4. 3: Distribution of head teachers response on the number of pupils enrolled in schools**

Figure 4.3 shows that slightly less than a half of the head teachers 13 (48.1%) indicated that the number of pupils attending their respective schools ranged from 201-300 pupils. Slightly more than a quarter of them 7 (25.9%) however indicated

that the number of pupils was not more than 200. according to these distributions, it may be deduced that indeed public primary schools contain quite a number of pupils and thus their population may pose a challenge to the available infrastructures.

#### 4.3.4 Conditions of the available infrastructure in school

The head teachers were further asked to rate whether the conditions of the various infrastructures in the schools were good, very good or poor. The infrastructure listed included classrooms, school furniture, toilet, kitchen and water point/tanks. Table 4.2 present the data.

**Table 4.2: Distribution of head teachers responses on the quality of infrastructure in schools**

	Good		Very Good		Poor	
	F	%	F	%	F	%
Classrooms	23	85.2	-	-	4	14.8
Furniture	20	74.1	-	-	7	25.9
Toilet	16	59.3	1	3.7	10	37.0
Kitchen	12	44.4	1	3.7	14	51.9
Water point/ Tank	13	48.1	6	22.2	8	29.6

Table 4.2 shows that majority of the head teachers were positive that the conditions of the infrastructure in schools were in a good state. However, there are those schools in the district which have infrastructures that are in a poor state. One of the leading infrastructures that are in poor conditions in the schools is the kitchen

(51.9%), followed by toilets (37%), water points/tanks (29.6%) and school furniture (25.9%) respectively.

The researcher also looked at the conditions of the infrastructure with the help of the observation guide. Through the guide, it was found that not all the schools in the division had quality infrastructure. Moreover, some of the classes had deteriorating facilities and this posed a great challenge on the learning processes in the school. Moreover, the researcher also observed that there were certain schools which had unfinished structures in the school. Other infrastructural elements that were found to be inadequate in the schools compare to the ratio of students available included play grounds, classrooms, toilets and water points. This finding justifies a previous research which was done on the impact that the enrollment rates had on infrastructure in schools. According to an observation by the UNICEF (2005), the increased enrollment of pupils in schools since the inception of free primary education has contributed to increased pressure on the available infrastructure.

#### **4.4 Availability of funds for infrastructure development**

Availability of funds plays a critical role when it comes to initiating projects on infrastructure development. When the funds are inadequate, then the projects may not be able to progress effectively. As such, this study sought to establish how adequacy of funds affected infrastructure development in primary schools in Kathonzweni Division.

#### 4.4.1 Methods Used To Raise Money to Develop Infrastructure in Schools

The head teachers were asked to indicate the methods that they used to raise money to develop infrastructure in schools. The methods that were suggested included government allocations, CDF funds, religious organizations, school fees, parents' contributions and donors. The data is presented in Table 4.3

**Table 4.3: Distribution of head teachers on the methods used to raise money for infrastructure development in schools**

	Yes		No	
	F	%	F	%
Parents Contributions	23	85.2	4	14.8
Government allocation	20	74.1	7	25.9
CDF	18	66.7	9	33.3
Donors	9	33.3	18	66.7
Religious organizations	7	25.9	20	74.1
School Fees	5	18.5	22	81.5

Table 4.3 shows that an overwhelming majority of the head teachers (85.2%) agreed that they used parents' contribution to raise money for infrastructure development in the school. Majority of them (74.1%) also indicated that government allocation was a key method used for generating money to facilitate infrastructure development in the schools. Other key methods suggested by the head teachers included CDF Funds (66.7%), donors (33.3%) and religious organizations (25.9%) respectively.

#### 4.4.2 Source of funds in schools for infrastructure

Further, the head teachers were also asked to specify various sources of funds for different infrastructures available in schools. The sources that were highlighted included fees, CDF, Donors, Parents contribution and Donors. The data is presented in Table 4.4.

**Table 4. 4: Distribution of head teachers on the sources of funds for different infrastructures in the school**

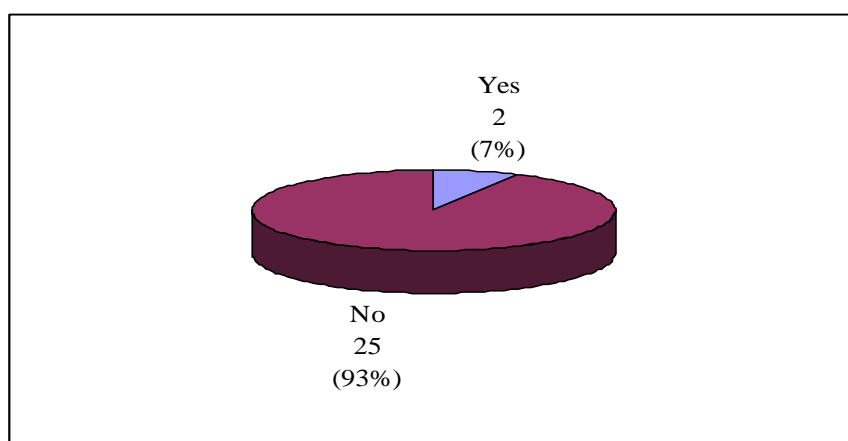
	Fees, CDF, Donors		Parents Contribution		Donors	
	F	%	F	%	F	%
Classrooms	18	66.7	7	25.9	2	7.4
Furniture	6	22.2	18	66.7	3	11.1
Toilet	8	29.6	12	44.4	7	25.9
Kitchen	5	18.5	18	66.7	4	14.8
Water point/ Tank	5	18.5	1	3.7	21	77.8

According to the data in Table 4.4, majority of the head teachers (66.7%) indicated that the funds came from the fees, CDF funds and donors. A quarter of them (25.9%) indicated that the money came from the contributions given by parents towards classroom infrastructure development. When asked to indicate the sources of funds for furniture in schools, majority of the head teachers (66.7%) indicated parents' contributions. Only a few of them (22.2%) indicated the sources to be from Fees, CDF funds and donors.

In terms of toilet, a good percentage of the head teachers (44.4%) indicated that parents' contribution was largely used in the development of toilets in schools. Slightly more than a quarter of them (29.6%) indicated that Fees, CDF funds and Donors were the main sources of funds for the development of toilet faculties. However, from the open ended questions, the teachers indicated that they still faced a challenge in the quality of toilets in the school. Parents' contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in schools. On the other hand, donors are the ones who fund the development of water points/ tanks in the schools.

#### **4.4.3 Whether funds provided for physical infrastructure is adequate**

The head teachers further gave their responses regarding whether the funds that were being provided were adequate enough to support infrastructure development in the schools. The data is presented in Figure 4.4.

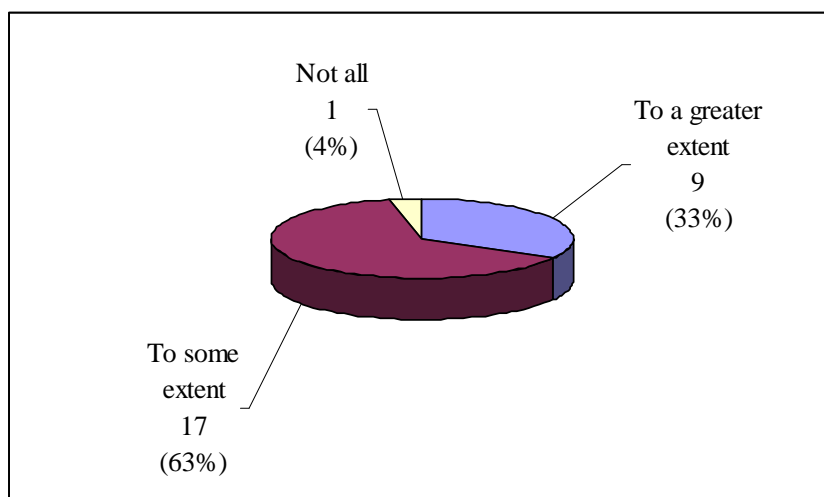


**Figure 4. 4: Distribution of head teachers on whether the funds provided for physical infrastructure development were adequate**

An overwhelming majority of the head teachers 25 (93%) indicated that the funds provided for infrastructure development were not adequate. Only two of them indicated that the funds were adequate.

#### 4.4.4 Extent to which funds influenced infrastructure development in the school

The head teachers were lastly asked to indicate the extent to which funds influenced infrastructure development in their respective schools. Figure 4.5 shows a summary of the findings obtained.



**Figure 4. 5: The extent to which funds influenced infrastructure development in the school**

The results in figure 4.5 show that majority of the head teachers 17 (63%) were in agreement that the availability of funds did influence infrastructure development in their respective schools to some extent. This was further supported by a third of them 9 (33%) who indicated that it did influence but to a greater extent.

In responding on the sources of funding for infrastructure development in schools, the PTA members reported that the school sources its funds for infrastructure development through the parents, donations and CDF and County government. This was further supported by the BoM who also indicated that the parents, donors and the government contributed funds used for infrastructure development in the school. The BoM members also reported that for resource mobilization practices, the school wrote proposals which were then issued to government or possible donors to support the infrastructure development process. The PTA and BoM however indicated that the funds which were being provided were not adequate to support full development of infrastructure in the school. This in the long run led to some infrastructures being left unfinished and thus also posing health risks to the pupils in the schools.

The AEO, DQASO and DEO also gave their own response regarding the sources of funding for infrastructure development in schools. All of them indicated that the key sources included government, CDF funds, MoEST, NGOs, donors and parents. The AEO further went on ahead to report that “Factors that made the sources mentioned above prevalent chooses as the main ways of raising money for funding school infrastructure included school enrollment and availability of general awareness”.

Schools have been suggested as to contribute towards the funding of infrastructure development in schools. This is in line with Elcher (1989) who observed that school financing has been the major source of funding for infrastructure development in primary schools. He further went on ahead to report physical infrastructure funding involved the funds or efforts expected on building, land, physical environment,

furniture and black wall either in form of repair and maintenance, construction and infrastructure management.

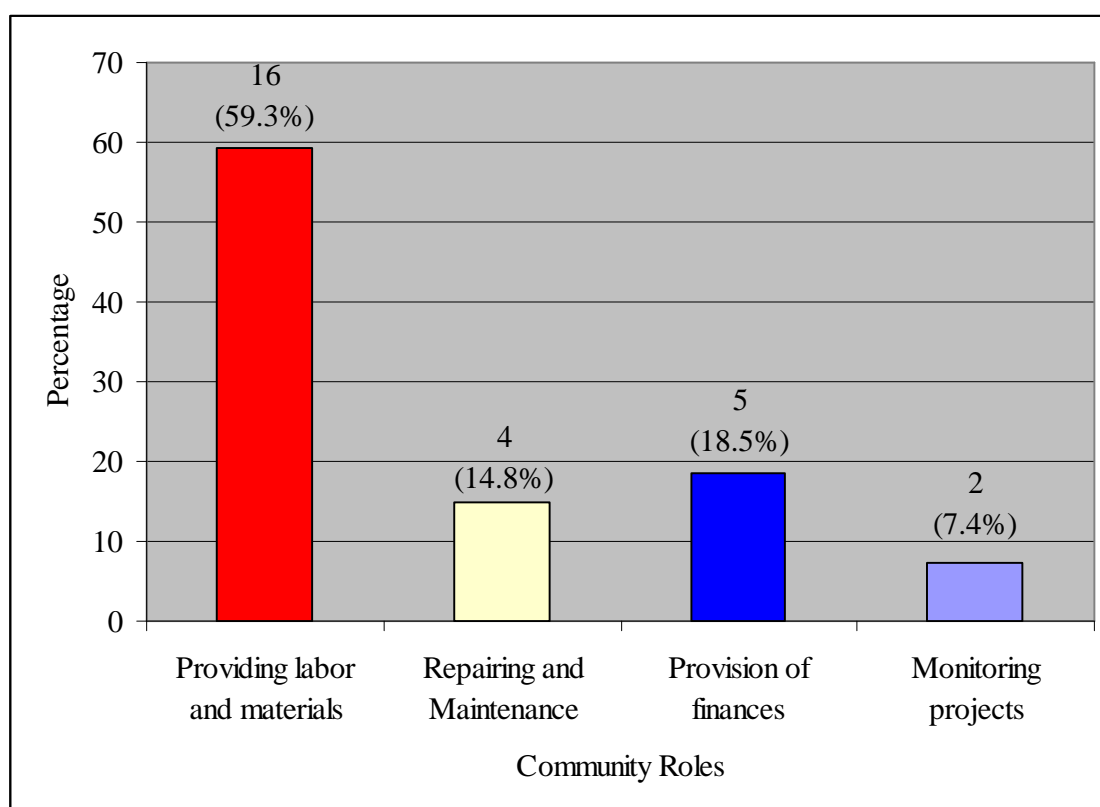
Besides schools being a source of finance, this study has also established that parents, government contributions and CDF funds contributed to the finances used in infrastructure development. This finding concurs with The Unynck (2003) who reported that funding for physical infrastructure was the responsibility of communities, parents and government. Community funding is very effective in cases in which the community desires to make future sacrifices to satisfy the practical needs. External help should just be a supplement. The study also established that donors were also involved in providing finances to support infrastructure development. One of the external donors as noted by World Bank (1988) is the World Bank. It is reported that World Bank is the most significant external funding bodies for education.

#### **4.5 Role of community in infrastructure development**

Infrastructure development in schools may not be effectively or fully realized without the cooperation of the school community members as well stakeholders. This study was thus set to determine how community involvement influenced infrastructure development in primary schools in Kathonzweni Division. To answer this objective, there are a number of questions that were asked. These included the community member roles in infrastructure development, members involved in repairing broken furniture and the extent to which community roles have contributed towards infrastructure development.

#### 4.5.1 Community members' role in infrastructure development

The head teachers were asked to indicate the role that the community members played when it came to infrastructure development in the schools. Some of the roles suggested included providing labor and materials, repairing and maintenance, provision of finances and monitoring infrastructure development projects in the schools. The responses obtained are as shown by Figure 4.6.



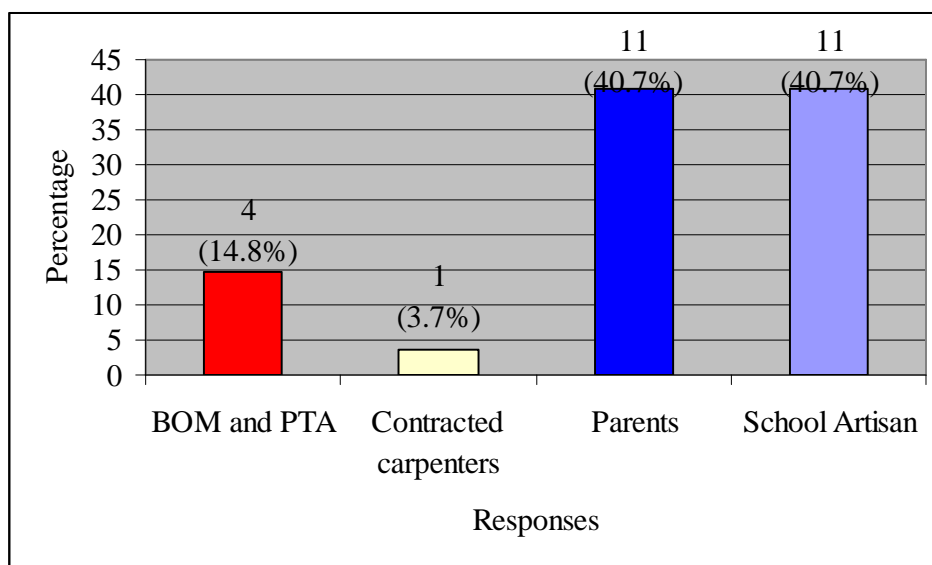
**Figure 4. 6: The role of community in infrastructure development in schools**

The data in figure 4.6 shows that slightly more than half of the head teachers 16 (59.1%) indicated that the community members were involved providing labor and

materials. Other roles played by the community members in infrastructure development included repairing and maintenance and provision of finances.

#### 4.5.2 Members involved in repairing broken furniture

Moreover, the head teachers went on ahead to indicate some of the community members who were being involved in the repairing of broken down furniture in the school. These members included Board of Management, Parent and Teachers Association, Contracted Carpenters, parents and the school. The data is presented in Figure 4.7.

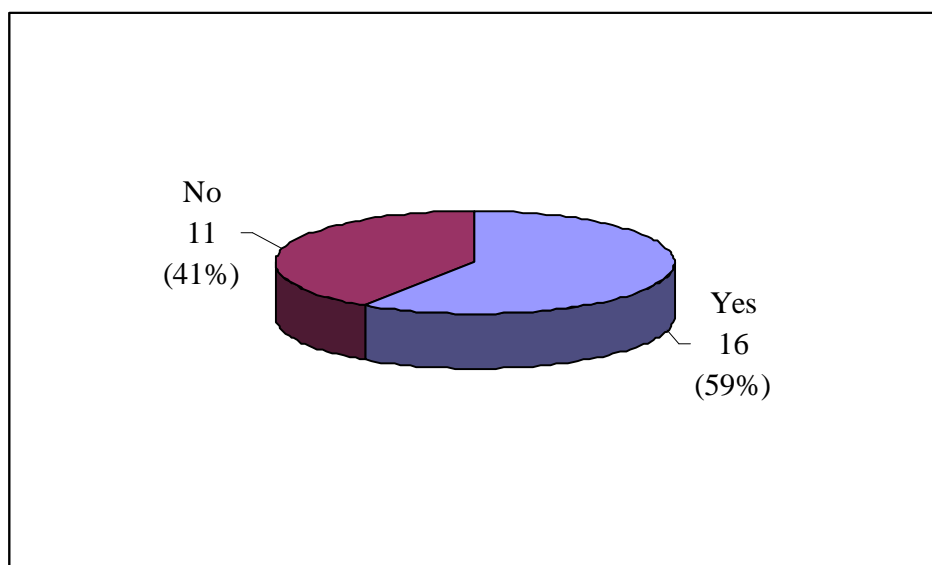


**Figure 4. 7: Head teachers responses on who repairs broken down furniture in the school**

The results in figure 4.7 show that majority of the head teachers indicated that parents 11 (40.7%) and school artisans 11 (40.7%) were the key community members involved in the repairing of broken furniture in the schools. A few of them

4 (14.8%) however indicated that the Board of management and PTA were the key partners involved in the repairing of broken infrastructure.

Having known the members involved in repairing broken furniture in the schools, the head teachers were further asked to indicate whether these furniture were being repaired on time. The data is presented in Figure 4.8.

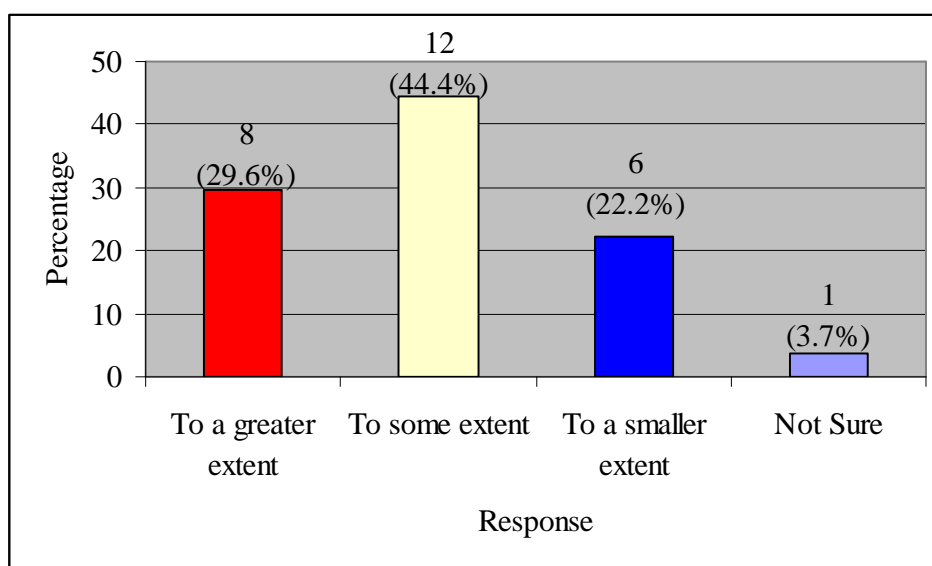


**Figure 4. 8: Distribution of head teachers response on whether the involved community members repaired the broken furniture in time**

The findings in figure 4.7 show that slightly more than half of the head teachers 16 (59%) agreed that the broken furniture was being prepared in time. However, a good percentage of them 11 (41%) indicated that the broken furniture was not being repaired in time.

### 4.5.3 Extent to which community roles have contributed towards infrastructure development

The respondents gave their responses on the extent to which community roles contributed towards infrastructure development in public primary schools in the district. Figure 4.9 presents a summary of the findings obtained.



**Figure 4. 9: Distribution of head teachers on the extent to which community roles have contributed towards infrastructure development**

The data in figure 4.9 show that a good percentage of the head teachers were positive regarding the extent to which community members contributed towards infrastructure development. 44.4% of them indicated to some extent whereas slightly more than a quarter of the head teachers 8 (29.6%) indicated that community roles contributed towards infrastructure development to a greater extent.

With regards to community involvement in infrastructure development, the PTA members had a number of responses to provide. They reported that the community members have been involved in infrastructure development through donating items such as water tanks among many others; some of the community members are less concerned and think that it is the responsibility of the MOE to do all the infrastructural development works in the schools; the community members ensure that the government has developed enough buildings in the school. This was further supported by the BoM who indicated that indeed the community members played various roles in facilitating infrastructure development in the school. They reported that community members provided labour as well as materials which aided in the infrastructure development process. However, they reported that a key challenge which affected the full participation of the community in infrastructure development was poverty.

The AEO reported that:

Poverty and misplaced priorities are major challenges affecting infrastructure development as well as resource mobilization among the community members. This affects to a greater extent the involvement of the community in supporting development in the respective schools.

DQASO officer on the other hand reported that the level of education and awareness is a critical issue which affected the involvement of various stakeholders in the

infrastructure development process in schools. Further, the officer went on ahead to report that:

Poverty levels and political interferences are the major issues which are affecting the effective involvement of local community members in infrastructural development in the respective public schools in the area.

On the other hand, the DEO reported that:

Poverty is a major issue which is hindering the full involvement of local community members in the infrastructure development. And most of the funds are used to purchase food instead of being put into infrastructure development.

In 1960s communities, parents and local authorities were principally responsible for capital investment in primary education throughout East Africa (Bogonko, 1992). The communities' contributions ranged from poles, thatch cash and labour.

Black & Scendlen (1980) also supports the findings of this study by indicating that funding primary school education infrastructure has been largely dependent on local community. Additionally, MOE (2009) comments that community contribution either in terms of financial resources depending on the economic level or in kind is required to support government and other pertinent contributions. Communities are expected to provide firewood, employ a cook, provide kitchen utensils, cooking water and monitor the utilization of the project's funds, as part of their contribution (MOE, 2009).

Moreover, the findings of this study is in-line with a survey carried out by Thinh (1991) which observed that PTAs provided for 21.2% of the cost of building 63.8% of the cost of furniture and equipment, 63.4% repairs and 87.7% of general contingencies. In Malaysia, it is the parents associations (PAs). The role of the parents associations is primarily that of material support; for example, contributing to building of school halls, canteens and adding classes. The PAs have come to play a central role in construction and maintenance of building and facilities in association with the local education councils. PAs persuade and encourage local production and trading establishments in building educational facilities. In Vietnam, most primary schools have been built by people through the PAs and the local educational councils. The association is also involved in the provision of desks, benches and in teaching aids etc (Thinh, 1991).

In further supporting the findings of this study on the involvement local community members in infrastructure development, Salomon and Anheier postulated that Christianity and particularly Protestantism permit the flourishing of the community actions because of its emphasis on individualism and its strong independence from state control. Gaduh (2012) also found that different religions had different impacts on the rise of the community action depending on the weight they assigned to charitable acts in terms of time and resources, supporting individual action, commitment to institution building and their relationship with the country.

#### 4.6 Policies and regulation on infrastructure development

Being public institutions of learning, government policies and regulations have a role that they may play in influencing infrastructure development projects. This study investigated how policies and regulations affect infrastructure development in primary schools in Kathonzweni Division. The head teachers were asked a number of questions and expected to give their responses as whether yes or no. Table 4.5 summarizes their responses.

**Table 4.5: Distribution of head teachers response on various issues regarding policies for infrastructure development**

	Yes		No	
	F	%	F	%
I am aware of the policies put in place by the government on infrastructure development in public schools	23	85.2	4	14.8
The school has a resource mobilization plan and policies which aid in infrastructure development policies	20	74.1	7	25.9
The available policies encourage the involvement of teachers in mobilizing resources for infrastructure development.	22	81.5	5	18.5
The policies put in place by the government encourage training of head teachers' involvement in infrastructural management and development.	24	88.9	3	11.1

Table 4.5 shows that majority of the head teachers (85.2%) indicated that they were aware of the policies put in place by the government on infrastructure development in public schools. A few of them (14.8%) indicated that they were not aware. In terms of resource mobilization plans, majority of the head teachers (74.1%) indicated that the school has a resource mobilization plan and policies which aid in infrastructure development policies. A quarter of them (25.9%) indicated that there were no such policies in the school.

The data in table 4.5 further showed that majority of the head teachers (81.5%) were positive by agreeing that the available policies encouraged the involvement of teachers in mobilizing resources for infrastructure development. A few of them (18.5%) however disagreed to the latter. Majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development.

The PTA members highlighted that there were a number of policies which had been put in place which governed the issue of infrastructure development in schools included the procurement policy and health and sanitation policy. However, one of the head teachers went on ahead to report that:

The procurement policy has been posing a challenge in the infrastructure development process in the school. Due to the policy, the bureaucracy is a bit tight and thus it takes a long time to procure materials which are required to facilitate infrastructure development.

In supporting the responses of the PTA, the members of the BoM were also in agreement that government policies did have an effect on infrastructure development process in public schools. They reported that the policies were not clear on the different roles that various stakeholders were supposed to play in the development process. Moreover, the policies were reported as to delay the procurement of materials which were required to facilitate the construction of infrastructure in the school.

In response to the effects of policies on infrastructure development in public primary schools, the DQASO officer reported that:

There are a number of policies which have been set aside to govern infrastructure development in schools. These policies include the safety standards policies. These policies address on how different infrastructures may be used in schools and safety maintained. Moreover, the available policies to some extent have influenced infrastructure development in schools through resource mobilization. For instance, procurement policies are very stringent and this makes the school representatives not able to afford various materials for infrastructural development.

Further, the AEO reported that:

There are policies addressing on infrastructure development in public primary schools. The government policies affect infrastructure development in that they

ensure proper use and give guidelines on how resources may be mobilized to facilitate infrastructure development in the public schools.

According to an observation made by the DEO, the main policies affecting infrastructure development in schools is the procurement policies and construction services. These policies are rigid and in most cases are bureaucratic in nature hence taking too long to process. Moreover, the policies tend to provide guidelines for proper usage of infrastructure.

In this section, the findings have shown that indeed policies do have an influence on infrastructure development. Some of the policies which have been pointed out in the study include procurement policies and health and safety policies. These policies have been pointed out as to determine how schools source for funds as well as get materials to the school to aid in infrastructure development. In supporting these findings, an article by UNESCO (2005) showed that appropriate and sufficient building, child friendly, safe environment enhance child rights. Such environments in schools can be realized through the prevalence of health and safety needs policies in schools. Moreover, the Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoE, 2005). This emphasizes the importance of complying with Education Act (Cap 211) and Public Health Act (Cap 242). The manual discusses size and number of physical infrastructure for resistance and recommends the need for sufficiency.

According to these acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users. However, one may find that the quality of such infrastructures in the respective public schools is inadequate. Moreover, the available facilities are always in poor conditions.

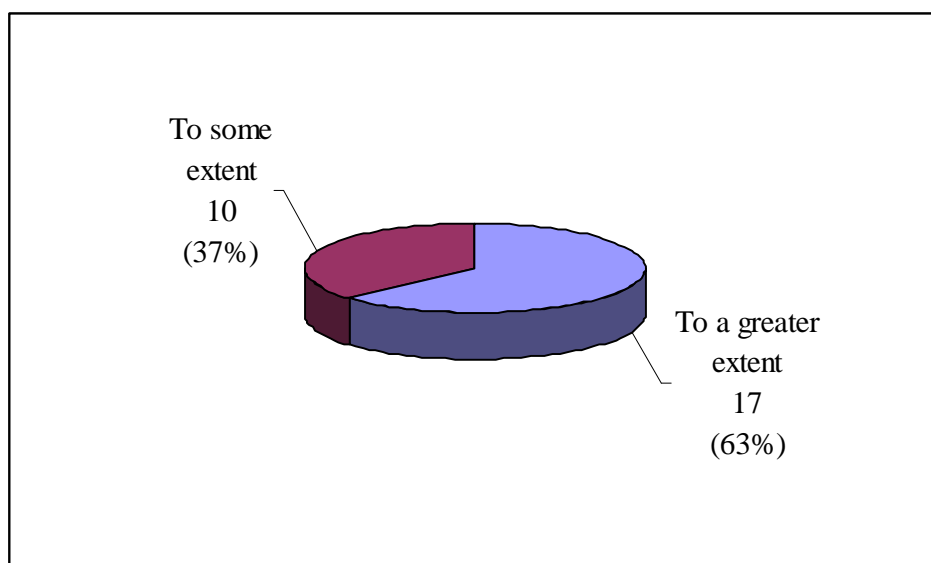
In conclusion, it may be reported that despite the prevalence of policies to aid in infrastructure development there are still issues which are hampering the effectiveness of these policies. Slowness in the procurement policies to the implementation process may raise eyebrows concerning the effectiveness of these policies. As such a recommendation can be given to address on the restructuring of policies to ensure their effectiveness in promoting infrastructure development in schools.

#### **4.7 Stakeholders' attitude and infrastructure development**

The fourth and last objective of the study was to examine how stakeholders' attitude affected infrastructure development in public primary schools. The head teachers were first asked to indicate whether they enjoyed being involved in infrastructure development in their respective schools. In this case almost all of them (96%) positively agreed that they enjoyed participating in infrastructure development process in their schools. Only one of the head teachers indicated that he did not

enjoy. Further, the head teachers were also asked to indicate the extent to which they enjoyed being involved in infrastructure development.

Figure 4.10 presents a summary of head teachers responses on the extent to which they enjoyed being involved in infrastructure development.



**Figure 4. 10: Distribution of head teachers on the extent to which they enjoy being involved in infrastructure development**

The data in figure 4.10 shows that there were those respondents who suggested that they enjoyed being involved in infrastructure development to a greater extent 17 (63%) where as others indicated to some extent 10 (37%).

Through the interview guides, the effects of stakeholders' attitude on infrastructure development were brought out clear. The PTA members for instance, indicated that attitude did have a great effect on the infrastructure development in schools. Most of them reported that some of the key stakeholders had a negative attitude and this

hindered them from being directly involved in the development process. One of the PTA members for instance reported that:

Some stakeholders have a negative attitude towards infrastructure development. Some of the members in the school tend to hold that infrastructure development is a responsibility of the government. As such, they do not contribute any resources or labour towards the development process.

Another PTA member further reported that “Some of the stakeholders have a negative attitude towards infrastructure development. They say that primary education is free hence they do not want to give money for buildings.” In summary, negative attitude among stakeholders led to inadequate involvement in infrastructure development, minimal provision of finances for infrastructure development and poor management of the already available infrastructure in the school.

In response to how stakeholders’ attitude affected infrastructure development, the AEO reported that:

The attitude of the stakeholders plays a major role in that they influence infrastructure development in the schools. In this case, many of the community members are of the perception that public school development is only for the government so they do not want to participate.

In further supporting the above statement by the AEO, the DQASO officer also reported that: “The attitude of the stakeholders affects their involvement in

infrastructural development differently. Positive attitude towards infrastructural development rises when there is full involvement of the members in the infrastructure development process.” On the other hand, the DEO reported that “most of the stakeholders have positive attitude however, financial problems at times makes them to develop coldness towards being involved in infrastructure development.”

Attitude has been found in this study as a major challenge on the involvement of stakeholders in infrastructure development. Most of the stakeholders are of the idea that development is for the government and thus they are not necessarily to be involved. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. The study found that attitude determined the extent to which members were motivated to use infrastructure as well as maintain it. Another study carried out by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary, conclusion and recommendations for this study.

#### **5.2 Summary of the study**

The main purpose of this study was to investigate the factors affecting infrastructure development in primary schools in Kathonzwi Division, Makueni County. The study was guided by the following research objectives: To establish how adequacy of funds affect infrastructure development in primary schools in Kathonzwi Division, to determine how community involvement influence infrastructure development in primary schools in Kathonzwi Division, to examine the effects of policies and regulations on infrastructure development in primary schools in Kathonzwi Division and to examine how attitude affects infrastructure development in primary schools in Kathonzwi Division.

A descriptive survey research design was used in this study. This design was used because it enables investigation into the subject under study. The sample for this study consisted of all the head teachers (27), Board of Management (27) and PTA Chairpersons (27), DEO (1), DQASO (1) and AEO (1). In total, the sample size for this study was eighty four (84). The head teachers, BoM and PTA chair persons were arrived at through census sampling method whereas the DEO, DQASO and AEO

were purposively selected to participate in the study. The data collection instruments used in the study included questionnaires for Head Teachers and interview guide for the B.O.M. and P.T.A chairpersons, AEO, DQASO and DEO and observation checklist.

The collected data was analyzed using descriptive statistics, employing both quantitative and qualitative approach. Data from questionnaires were purely analyzed quantitatively and presented in frequencies and percentages while data from interview guide was analyzed qualitatively. The study used SPSS (Statistical Package for Social Sciences) to aid in data analysis process. From the analysis, the following findings were made:

There are those schools in the district which have infrastructures that are in a poor state. One of the leading infrastructures that are in poor conditions in the schools is the kitchen, followed by toilets, water points/tanks and school furniture respectively. The key methods used to raise money for infrastructure development in schools include parents' contribution, government allocation and CDF funds.

For classroom infrastructure, majority of the head teachers (66.7%) indicated that the funds came from the fees, CDF funds and donors. Major sources of funds for school furniture include parents' contributions (66.7%). Parents' contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in

schools. An overwhelming majority of the head teachers (93%) indicated that the funds provided for infrastructure development were not adequate.

The PTA, BoM members and AEO, DQASO and DEO reported that the key sources of funds for infrastructure development include parents, CDF funds, government allocations and MoEST. Role of community members in infrastructure development include providing labour materials, repairing and maintenance, provision of finances and monitoring projects. Poverty, level of education and awareness and misplaced priorities affected the involvement of community members in infrastructure development.

Majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development. Majority of the head teachers (85.2%) indicated that they were aware of the policies put in place by the government on infrastructure development in public schools.

Attitude affects the extent to which stakeholders are involved in the infrastructural development. Most of the stakeholders such as parents have a negative attitude towards involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not them.

### **5.3 Conclusion**

From the analysis and summary of the study, there are a number of conclusions which can be made. First and foremost, it may be concluded that the quality of infrastructure among quite a number of public primary schools in Kathonzweni division is in poor state. This puts a reason for recommendations to be put in place to address the deteriorating conditions of infrastructure in the schools.

In terms of funds, it is concluded that the major sources of funds for infrastructure development in schools include parents, CDF funds, government allocations and donors. However, these funds are not adequate and thus schools are not in a position to meet the full cost of developing infrastructure in the schools. Thus, it may be concluded that inadequacy of funds affect infrastructure development in public primary schools in Kathonzweni division to a greater extent.

Policies and regulations have also been noted as a factor that affects infrastructure development in schools. Tight policies such as those for procurement have been noted as to delay the process of obtaining materials to be involved in the infrastructure development process. Moreover, the policies do not show different roles that different stakeholders should play in the development of infrastructure in schools. As such, it is concluded that policies and regulations affect infrastructure development in schools to a greater extent.

The involvement of the community members is critical to the success of infrastructure development in schools. However, there are a number of issues which arise that affect their involvement in the infrastructure development process. Poverty and political interferences affect the way community members participate in infrastructure development. However, the roles they play include providing finances, labour and materials and carrying out repair services.

The attitude can be concluded a determinant that affects stakeholders' involvement in the infrastructure development process. For instance, most of them hold the idea that FPE is free hence it remains the responsibility of the government to take care of the infrastructure in schools. Moreover, due to negative attitude some parents do not want to contribute finances or labor to support the development of infrastructure. This affects infrastructure development in the school to a greater extent.

#### **5.4 Recommendations**

That the Ministry of Education should start negotiations with County governments to pursue the possibility of counties getting more actively involved in funding school infrastructure projects. This will be a big boost to upgrading the dilapidated structures in many schools as noted in the case of public primary schools in Kathonzweni division. This will also ease pressure on FPE fund which can then be channeled by the head teachers towards improving learning through the purchase of teaching and learning essentials in the classroom. Infrastructure is currently

competing with for scarce resources with other learning requirements hence the financial constraint is piling pressure on head teachers.

The MoEST should use the local education officers to carry out awareness sessions with parents and key stakeholders to sensitize them on way that they can support their schools by developing the required infrastructure through provision of all possible resources including giving in kind. There is need for more stakeholders to be involved in the infrastructure development process in schools. This will help to ensure full community involvement in school infrastructure development.

MoEST should strengthen the training for head teachers on resource mobilization for infrastructure development build their capacity on infrastructure development and management in the schools. These trainings may be carried out in the course of holidays or within the school periods so as to provide an ample time for head teachers to exercise what they learn.

It is also recommended that as far as possible, there is need for more money to be allocated by the government to support infrastructure development in public primary school. This is because from the head teachers' responses on adequacy of funds, it was clear the funds currently allocated by the government are not sufficient for developing school infrastructure. There is also need for the government to create time to facilitate the revision of the policies so as to provide clear guidelines in infrastructure development as well as avoiding the delays which are experienced in the procurement process of materials for infrastructure development.

The school head teachers have a role that they need to play in mobilizing the community members and parents on the importance of their involvement in the infrastructure development process. Through general meetings in the schools, the head teachers can inform the parents how their involvement in the school creates a lot of opportunities in facilitating infrastructure development processes.

The school head teachers and the chairpersons of both the PTA and BoG need to put their heads together and strategize on the mechanisms that they may employ in mobilizing resources for infrastructure development in schools. This may be done through harambee, fundraising functions, developing of infrastructural funding proposals among many others.

The community members have a sole responsibility that they need to play in promoting infrastructure development in schools. As such, they need to be encouraged and motivated by being informed through open air campaigns that their support and involvement in the construction of infrastructure in schools is highly recognized and appreciated. More avenues need to be created which directly involves the participation of community members in the development of physical infrastructure in the schools.

#### **5.5. Suggestions for further research**

1. This study focused on factors influencing infrastructure development in public primary schools, but did not look at parents' occupation or economic

activities and levels of education. A study can be done on the influence of parents' occupation /economic activities and their levels of education on school infrastructure development.

2. This study was limited to Kathonzweni Division in Makueni County. Other studies on factors influencing school infrastructure development should be done in other parts of Kenya to look at other factors and compare the findings.

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## **APPENDICES**

### **APPENDIX I**

#### **LETTER OF INTRODUCTION**

Josiah M. Ojwang  
University of Nairobi  
Department of Educational Administration and Planning  
P.O. Box 30197 NAIROBI

The Head teacher,

Dear Sir/Madam,

#### **RE: PARTICIPATION IN RESEARCH**

I am a post graduate student at the University of Nairobi pursuing a master's degree in Education. I am conducting a research on the topic "**Factors influencing infrastructure development in public primary schools in Kathonzweni division, Kenya.**"

This study is going to benefit the principals and teachers to understand the relevance of infrastructural development and the key approaches to resource mobilization in public primary schools.

I hereby request you to assist me with necessary information to help me obtain accurate findings. Kindly allow me to carry out this research in your school.

Thank you.

Yours faithfully,

Josiah M. Ojwang.

## APPENDIX II

### QUESTIONNAIRE FOR HEAD TEACHERS

Please read the questions below and kindly give the appropriate response by ticking (✓) or writing in the spaces provided .Please note that this information is purely for academic purpose and your identity will be held in utmost confidentiality.

#### Section A: Personal Information

1. Name of school: .....

2. What is your highest academic level?

- |                |                          |
|----------------|--------------------------|
| a) P1 ( )      | d) Degree ( )            |
| b) ATS ( )     | e) Master's Degree ( )   |
| c) Diploma ( ) | f) Other (specify) ..... |

3. How many years have you been a head teacher in this school?

- |                      |                       |
|----------------------|-----------------------|
| a) Below 2 years ( ) | c) 5-10 years ( )     |
| b) 2-5 years ( )     | d) Above 10 years ( ) |

4. What is the number of pupils attending the school? .....

6. What is the status of the infrastructure in your school?

Physical Infrastructure	Are they Comfortable	Number	Status (very good, good, bad, very bad, n/a)
Classrooms			
Furniture			

Toilets			
Kitchen			
Water Point / Tank			
Other (specify):			

- a) When your furniture break down who repairs them? .....
- b) Are they repaired in time? .....
- c) Do the pupils seem overcrowded in class? .....
- d) Do you face any problems with your toilets? .....
- If yes list them: .....

**Section B: Availability of Funds for Infrastructure Development**

7. Where have your sourced funds to put up the following infrastructure?

<b>Physical Infrastructure</b>	<b>Source [CDF, LATF, KESSP, fees, donors, etc.]</b>	<b>% funded</b>
Classrooms		
Furniture		
Toilets		
Kitchen		
Water Point / Tank		
Other (specify):		

8. Do these provide sufficient funds for physical infrastructure development?

---

9. To what extent does the availability of funds influence resource mobilization for infrastructure development in your school?

- a) To a greater extent [ ]                      c) Not at all [ ]  
b) To some extent [ ]                              d) Not sure [ ]

**Section C: Role of Community in Infrastructure development**

10. What are some of the roles that the community plays in infrastructure development in your school?

---

11. To what extent has the community members in your area contributed towards the development of infrastructure in your school?

---

**Section D: Policies and Regulation on Infrastructure development**

12. Tick all the methods that you use to raise money to develop school infrastructure.

- (a) Government allocation    (b) CDF funds                      (c) Religious organizations  
(d) School Fees                      (e) Parents contribution                      (f) Other (specify)\_\_\_\_\_

13. Are there any policies which you are aware of that aid in infrastructure development in your school? \_\_\_\_\_

14. Does the school have a Resource Mobilization Plan or policies for infrastructural development? \_\_\_\_\_

15. Do the available policies encourage the involvement of teachers in choosing or suggesting what methods can be used to mobilize funds for school infrastructure development? \_\_\_\_\_



**APPENDIX III**

**INTERVIEW GUIDE FOR PTA AND BOM CHAIRPERSONS**

1. Date \_\_\_\_\_
2. Center \_\_\_\_\_  
Position PTA official ( ) BOM official ( )
3. What is the role of the body you officiate with regards to infrastructure development? \_\_\_\_\_
4. Does the school have a resource mobilization plan?  
\_\_\_\_\_
5. How does the school source funds for infrastructure development?  
\_\_\_\_\_
6. What are the main sources of funds for infrastructure development in the school?  
\_\_\_\_\_
7. What are the community concerns about the school's infrastructure?  
\_\_\_\_\_
8. Are there any government policies which influence or promote resource mobilization for infrastructure development in public primary schools? Yes/ No. explain \_\_\_\_\_
9. How does stakeholders' attitude affect the infrastructure development in schools?  
\_\_\_\_\_
10. In your view, what can be done to improve resource mobilization for infrastructure development?  
\_\_\_\_\_

*Thank you*

## **APPENDIX IV**

### **INTERVIEW GUIDE FOR DEO, DQASO AND AEO**

These interviews will be conducted by the researcher and will target the DEO, DQASO and AEO in charge of the division to get their views on resource mobilization for school infrastructure development.

1. What are the main sources of funding for infrastructure development in public primary schools in Kathonzwani district?
- 

2. What factors make the sources mentioned above prevalent choose as the main ways of raising money for funding school infrastructure?
- 

3. Do you organize/prepare training sessions for primary school head teachers on management/resource mobilization?

4. Are there any policies addressing on infrastructure development in public primary schools? Yes/ No. if yes, indicate these policies.
- 

5. How do governmental policies affect resource mobilization for infrastructure development in public primary schools?
-

6. In your experience, what are the challenges faced by head teachers in  
Kathonzwi as they raise funds to develop school infrastructure

---

7. How does stakeholders' attitude affect the infrastructure development in schools?

---

8. Please comment on any other alternative approaches or sources that can be used by head  
teachers to mobilize funds for developing school infrastructure in Kathonzwi

---

*Thank you*

## APPENDIX V

### OBSERVATION CHECK LIST

<b>Physical Infrastructure</b>	<b>Number</b>	<b>Status (very good, good, bad, very bad, not available)</b>	<b>Adequacy(Adequate, not adequate, not available)</b>
Classrooms			
Play grounds			
Students desks			
Teachers' tables			
Teachers' chairs			
Blackboards			
Toilets			
Kitchen			
Water Point / Tank			
Other (specify):			

APPENDIX VI

RESEARCH AUTHORITY LETTER

MINISTRY OF EDUCATION SCIENCE AND TECHNOLOGY

Office of the Sub-County Director of Education, Kathonzwani Sub-County

State Department of Education

Telegrams: "Kathoedu"  
Telephone:  
E-mail: deokathonzwani@gmail.com  
When replying please quote



SUB COUNTY EDUCATION OFFICE,  
KATHONZWANI SUB COUNTY,  
P.O. BOX 103-90302  
**KATHONZWANI.**

19<sup>th</sup> June, 2015

**REF: ED/KZN/ED 5/22 VOL I/20**

TO  
ALL HEADTEACHERS – PRIMARY SCHOOLS  
KATHONZWANI DIVISION  
**KATHONZWANI SUB COUNTY**

**RE: RESEARCH AUTHORITY – JOSIAH M. OJWANG**

The above mentioned is a registered Post graduate student at the University Of Nairobi- Kenya. He intends to undertake a research on ***Factors influencing infrastructure development in public primary schools in Kathonzwani division, Kathonzwani sub county in Makueni county, Kenya.***

Kindly accord him all necessary support he requires.

Yours faithfully,

ASSISTANT DIRECTOR OF EDUCATION  
KATHONZWANI SUB-COUNTY  
P. O. Box 103-90302  
KATHONZWANI



SIMON NGUMBI  
FOR: SUB COUNTY DIRECTOR OF EDUCATION  
**KATHONZWANI SUB COUNTY**

ISO 9001:2008 CERTIFIED



## APPENDIX VII

### LETTER OF INTRODUCTION



UNIVERSITY OF NAIROBI  
COLLEGE OF EDUCATION AND EXTERNAL STUDIES  
SCHOOL OF EDUCATION  
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING

Telegram: "CEES"  
Telephone: 020-2701902  
dept-edadmin@uonbi.ac.ke

P.O. BOX 30197 NAIROBI  
OR P.O. BOX 92  
KIKUYU

16<sup>th</sup> June, 2015

Our Ref: UON/CEES/SOE/A&P/1/4

#### TO WHOM IT MAY CONCERN

Dear Sir/Madam

SUBJECT: OJWANG JOSIAH MESHACK - REG NO. E55/75331/2012

This is to certify that **Ojwang Josiah Meshack** is our Master of Education student in the Department of Educational Administration and Planning at the University of Nairobi. He has successfully completed his course work and is summarizing his research on "*Factors Influencing Infrastructure Development in Public Primary Schools in Kathonzweni Division, Makeni County, Kenya*".

Any assistance accorded to him will be highly appreciated.

Yours faithfully,

**DR. GRACE NYAGAH**  
CHAIRMAN  
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING



GN/nd

## APPENDIX VIII

### AUTHORIZATION LETTER



#### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 310571, 2219420  
Fax: +254-20-318245, 318249  
Email: secretary@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref: No.

Date:

**2<sup>nd</sup> July, 2015**

**NACOSTI/P/15/5833/6787**

Josiah Meshack Ojwang  
University of Nairobi  
P.O. Box 30197-00100  
**NAIROBI.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Factors influencing infrastructure development in public primary schools in Kathonzweni Division, Makueni County, Kenya*," I am pleased to inform you that you have been authorized to undertake research in **Makueni County** for a period ending **31<sup>st</sup> July, 2015**.

You are advised to report to **the County Commissioner and the County Director of Education, Makueni 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.

  
**SAID HUSSEIN**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Makueni County.

The County Director of Education  
Makueni County.

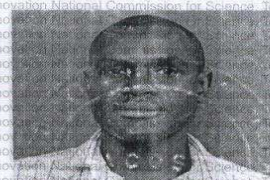


# APPENDIX IX

## RESEARCH CLEARANCE PERMIT

**THIS IS TO CERTIFY THAT:**  
**MR. JOSIAH MESHACK OJWANG**  
**of UNIVERSITY OF NAIROBI, 34606-100**  
**Nairobi, has been permitted to conduct**  
**research in Makueni County**  
**on the topic: FACTORS INFLUENCING**  
**INFRASTRUCTURE DEVELOPMENT IN**  
**PUBLIC PRIMARY SCHOOLS IN**  
**KATHONZWEZI DIVISION, MAKUENI**  
**COUNTY, KENYA**  
**for the period ending:**  
**31st July, 2015**


**Permit No : NACOSTI/P/15/5833/6787**  
**Date Of Issue : 2nd July, 2015**  
**Fee Received :Ksh 1000**



**Applicant's Signature** *Josiah Meshack Ojwang*  
**Director General** *Walter Ombaka*  
**National Commission for Science, Technology and 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 that 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.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant 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.**



**REPUBLIC OF KENYA**  
**NACOSTI**  
**National Commission for Science, Technology and Innovation**

**Serial No. A 5636**  
**CONDITIONS: see back page**

**FACTORS INFLUENCING INFRASTRUCTURE DEVELOPMENT IN  
PUBLIC PRIMARY SCHOOLS IN KATHONZWENI DIVISION, MAKUENI  
COUNTY, KENYA**

**Ojwang Josiah Meshack**

**A Project Report Submitted in Partial Fulfillment of the Requirements for the  
Degree of Master of Education in Educational Administration**

**University of Nairobi**

**2015**

## **DECLARATION**

This project report is my original work and has not been submitted for the award of a degree in any other university.

---

Ojwang Josiah Meshack

E55/75331/2012

This project report has been submitted for examination with our approval as University Supervisors

---

Dr. Ursulla A. Okoth

Senior Lecturer

Department of Educational Administration and Planning

University of Nairobi

---

Prof. Genevieve Wanjala

Department of Educational Administration and Planning

University of Nairobi

## **DEDICATION**

This work is dedicated to my wife Edna Ojwang and my children Liz Ojwang, Dorraine Ojwang and Blessing Ojwang.

## **ACKNOWLEDGMENT**

I very humbly give gratitude to my creator, the Almighty God for giving me life, intellect, resources and ability to carry out this project. I also give special thanks to my supervisors, Dr. Ursulla Okoth and Prof. Genevieve Wanjala for their support, patience and intellectual input which have been instrumental in making this work see the light of day. I also thank all the lecturers in the Department of Educational Administration and Planning of the University of Nairobi for their diligence in leading us through this course.

I also thank my classmates for their encouragement as we studied together and gave support to each other as necessary. I also take this chance to thank my research assistant Benjamin Musau, who was very supportive and demonstrated a lot of dynamism during the data collection process. Also acknowledged in this study are the respondents including head teachers, Parent Teacher Association (PTA) and Board of Management (BOM) chair persons, District Education Officer (DEO), District Quality Assurance Officer (DQASO) and Area Education Officer (AEO) who were supportive all through the data collection process. Finally, I give special accolades to my dear wife Edna Ojwang who supported and encouraged me in all ways to complete this course.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AEO</b>	Area Education Officer
<b>ASAL</b>	Arid and Semi-Arid Lands
<b>BOM</b>	Board of Management
<b>DEO</b>	District Education Officer
<b>DQASO</b>	District Quality Assurance and Standards Officer
<b>EFA</b>	Education for All
<b>KESSP</b>	Kenya Education Sector Support Programme
<b>MDG</b>	Millennium Development Goal
<b>MOE</b>	Ministry of Education
<b>MoEST</b>	Ministry of Education, Science and Technology
<b>MTP</b>	Medium-Term Plan
<b>NGO</b>	Non – Governmental Organization
<b>PA</b>	Parents’ Association
<b>PEDP</b>	Primary Education Development Plan
<b>PPS</b>	Presidential Press Service
<b>PTA</b>	Parents’ Teachers Association
<b>SMC</b>	School Management Committee
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNICEF</b>	United Nations Children's Fund
<b>UPE</b>	Universal Primary Education

## **ABSTRACT**

The main purpose of this study was to investigate the factors influencing infrastructure development in primary schools in Kathonzwani Division, Makueni County. The study further examined how adequacy of funds, community, policies and regulations and stakeholder attitude affected infrastructure development in primary schools in Kathonzwani Division. A descriptive survey research design was used in this study. The sample consisted of 27 head teachers, 27 Board of Management and 27 PTA Chairpersons, DEO (1), DQASO (1) and AEO (1). In total, the sample size was eighty four (84). Both census and purposive sampling procedures were used to arrive at the sample of respondents. Instruments used included questionnaires for Head Teachers and interview guide for the B.O.M. and P.T.A chairpersons, AEO, DQASO and DEO and observation checklist. Data was analyzed using descriptive statistics, employing both quantitative (questionnaires) and qualitative (interview guide) approach. From the analysis, the following findings were made: The methods used to raise money for infrastructure development in schools include parents' contribution, government allocation and CDF funds. The role of community members in infrastructure development include providing labor materials, repairing and maintenance, provision of finances and monitoring projects. However, these roles are affected by poverty, level of education and awareness and misplaced priorities. Tight policies such as those for procurement have been noted as to delay the process of obtaining materials to be involved in the infrastructure development process. Moreover, the policies do not show different roles that different stakeholders should play in the development of infrastructure in schools. Most of the stakeholders have a negative attitude towards involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not them. The following recommendations are given: Clear roles of community, government and other partners to be developed by the MoE, more stakeholders to be involved in the infrastructure development process in schools, awareness creation to be made on the need for full community involvement in infrastructure development. There is need for more money to be allocated by the government to support infrastructure development. There is also need for policy issues to be revised so as to guide clear guidelines in infrastructure development as well as avoiding the delays which are experienced in the procurement process of materials for infrastructure development.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the study**

Globally, educating citizens is a key responsibility of the government and a main factor in development. Indeed education is seen as the principal institutional mechanism for the development of human capital (Nsubuga, 2003). Education is actually an investment for a country; hence there is a positive correlation between education and economic development (Rhodes & Bell, 2004). The United Nations Declaration on Human Rights (1948) recognizes education as a human right and points out that it shall be free. This is further buttressed by the world conferences on Education for All (EFA) in Jomtien (1990) and Dakar (2000) which emphasized the principles that every child has a right to education. The millennium development goals (MDGs) lay considerable emphasis on education in terms of achieving Universal Primary Education (UPE). Since all have a right to education, the issue of access has necessitated expansion of existing schools and putting up new physical facilities in schools. Setting up learning structures is therefore a matter of priority to government's world over.

In South Africa, while some schools have excellent infrastructure, others lack basic services like water and sanitation. It is noted that schools in what were formerly black areas in the apartheid period generally suffer poor infrastructure and there is

backlog of physical school development (Gibberd, 2007). Gibberd (2007) further denotes that South Africa is struggling with prioritizing which schools should be given more emphasis in terms of allocating resources to ensure that the overall performance of school infrastructure is improved.

Another country in Africa which has been on the map concerning the infrastructure development issues in schools is Nigeria. The capacities of schools in Nigeria are not in a position to fully handle the ever increasing enrollment of learners. Issues such as inadequacy of funding, infrastructure and lack of manpower or community involvement have been raised as to affect the quality of education in the schools (Solutions 4 Africa, 2015). Moreover, various researchers (Olagunju, 2011; Zubairu, 2010; Isyaku, 2003) have also pointed that lack of proper maintenance due to insufficient policies have contributed to the prevalence of poor infrastructure in most of the secondary schools in Nigeria. To address the issue of infrastructure in schools, the government has tried to come up with some policies or initiatives to encourage infrastructural development so as to enhance the overall education process in schools.

The issue of infrastructure among schools is also evident across various countries in East Africa. Countries such as Tanzania, Uganda, Burundi and Rwanda have been highlighted by various researchers concerning the crumbling conditions of infrastructure in schools. This has also been attributed as to influence the incorporation of various developmental programs and curriculums in the school

inclusive of ICT (World Bank, 2007). Lack of investments or funds, attitude, policy related issues among many others have been raised as to contribute to the crumbling conditions of infrastructure in the schools.

In Kenya, the state of infrastructure in many schools still remains wanting. It may be observed that the state of school infrastructure in Kenya is not anywhere near adequate as thousands of pupils learn in dilapidated classrooms or no classrooms at all and schools lack basic facilities like toilets (Daily Nation, 19 March 2014). Indeed even before Free Primary Education (FPE) was introduced, schools barely had enough infrastructure. With the advent of FPE, the available school facilities simply became overstretched since the issue of infrastructure was glossed over as more children trooped to schools. Children began to learn under trees and in makeshift classrooms, whereas sanitary facilities such as toilets and water supply became overstretched. For instance, The United Nations Children's Fund (UNICEF) (2010) found that on average, 38 male pupils share a toilet and 32 female share a toilet in Kenya's public primary schools. This does not meet even the government's own recommendation of one toilet for 25 girls and one for 30 boys.

Kenya's development blueprint, Vision 2030, also recognizes the need for proper priority towards school physical infrastructure. In its medium-term plan (MTP) for 2008-2010, education was identified as one of the eight sectors that would contribute to the national development under vision 2030. One of the identified flagship programmes was attainment of education for all by 2015. MTP emphasized that the

government would develop an infrastructure programme to rehabilitate schools (Vision, 2030). Apart from these, there is need for accountability to make the infrastructure funding effective. In January, 2010, the Presidential Press Service (PPS) reported that the then president of Kenya, Mwai Kibaki asked parents to demand accountability for the funds given or distributed to schools. The president noted that the funds were meant for development of local schools and creation of an environment conducive for learning.

School infrastructure to a large extent is instrumental in achievement of education goals. Classrooms, offices, teachers room/staff room, play fields and toilets are all basic requirements essential for the smooth functioning of the school. Head teachers and School Management Committees (SMC) are tasked with developing and maintaining infrastructure in their schools. Raising funds for infrastructure development is therefore a key management function of the school head teacher. The head teacher has a duty to ensure that school infrastructure facilities are available and kept in tidy state since this is an important part of the provision of education (Mbiti, 2007).

Public primary schools in Kathonzi division, just like in other parts of Kenya, are expected to have the entire recommended infrastructure to facilitate proper learning and for the comfort of pupils and teachers. While it is the desire of the head teachers to ensure that their schools are adequately equipped, many schools are inadequately equipped in terms of infrastructure development. There are children learning in

crowded classrooms, classrooms in many schools are dilapidated and poorly maintained and some of the structures are improvised for use as classrooms, offices or toilets.

The Kathonzweni District Education Officer Report (2012) captured the wanting state of infrastructure in the district and narrowed down to the ability of head teachers to raise funds for school infrastructure. The report indicates that many head teachers had tried to mobilize school funds for infrastructure development but complained of many difficulties such as competition for the available donors, priority to food and learning materials such as books, lack of cooperation from parents or even Boards of Management. The DEO report also explains that head teachers also complained that some parents and community members were unwilling to contribute to school infrastructure because they understand that primary education is free, thus they do not need to pay anything in school.

Infrastructural issues have also been associated poor quality of education being provided in the public primary schools. Parents and teachers among many other stakeholders have been trying to come up with strategies to improve the quality of education provided in the public schools. Some have been in the forefront in coming up with approaches targeted towards improving the school conditions and especially the quality of infrastructure. A question that however remains among many individuals and researchers is how can resources be mobilized in schools for infrastructural development practices? And if there are resource mobilization

practices, what then are the factors affecting infrastructural development in primary schools? All these questions form a key component of this study. As such, the researcher examined the factors which influenced infrastructure development. Some of the variables which the study examined include the role of the community, availability of funds as well as policies.

## **1.2 Statement of the problem**

Physical infrastructure in public primary schools in Kathonzwi division has been in a bad state. One may observe that there are inadequate facilities such as classrooms, sanitation facilities and poor kitchen conditions among many others. Moreover, the playgrounds in most of the schools are in a poor state and thus pose a challenge to the security of the children while in the playground. The capacity of school facilities cannot sustain the increased enrollment of the pupils which has largely been influenced by the introduction of Free Primary Education (FPE). Head teachers in the area have been trying their level best in promoting infrastructure development to schools but all this has been in vain. As such, this has raised question among various stakeholders in the educational sector on what exactly are the challenges which are affecting infrastructure development in public primary schools. This question formed the general objective and purpose of this study.

On the other hand, there are a number of studies (Gaduh, 2012; Ayogu, 2007; MOE, 2005; Crampton and Thompson, 2003) which have been carried out with respect to resource mobilization and infrastructure development. For instance, the study by

Ministry of Education (MoE) (2005) emphasized on planning, accountability for resource use and community participation through empowerment in resource mobilization. However, most of these studies have had their own limitations which vary from geographical coverage to the methodological approaches. This study on the other hand, investigated factors affecting infrastructure development in primary schools in Kenya. Hence, there was need for this study to be carried out to investigate the factors affecting infrastructure development in primary schools in Kathonzwi Division, Makueni County, Kenya.

### **1.3 Purpose of the study**

The purpose of this study was to investigate the factors affecting infrastructure development in primary schools in Kathonzwi Division, Makueni County.

### **1.4 Research objectives**

This study was guided by the following research objectives:

- i. To establish the extent to which adequacy of funds influence infrastructure development in primary schools in Kathonzwi Division
- ii. To assess the extent to which policies and regulations influence infrastructure development in primary schools in Kathonzwi Division.
- iii. To determine how community involvement influence infrastructure development in primary schools in Kathonzwi Division.
- iv. To examine how parent attitude influence infrastructure development in primary schools in Kathonzwi Division.

### **1.5 Research questions**

The following research questions were used to guide the study:

- i. How does the adequacy of funds affect infrastructure development in primary schools in Kathonzwani Division?
- ii. What are the effects of policies and regulations on infrastructure development in primary schools in Kathonzwani Division?
- iii. How does the community involvement affect infrastructure development in public primary schools in Kathonzwani Division?
- iv. How does parent attitude influence infrastructure development in primary schools in Kathonzwani Division?

### **1.6 Significance of the study**

This study is hoped to be of significance to various stakeholders in the educational sector. These stakeholders include pupils, head teachers, parents, the government, community members and policy makers. Pupils are hoped to be the key beneficiaries of this study. Through the recommendations, they will be able to have a good and conducive learning environment that comprises of well furnished and safe infrastructure to use. Moreover, they will also be reinforced on the roles that they can play to facilitate the maintenance of the available infrastructure in the school.

The head teachers, PTA and BOG members are also expected to benefit from the findings and recommendations of this study. They will first be enlightened on the various factors such as adequacy of funds, policies and regulations, community

involvement and parents' attitude affect infrastructure development in the school. Moreover, through the recommendations, they will be provided with techniques that they may use to overcome these challenges and thus facilitate effective infrastructure development in the school. The community members will also benefit from this study. They will be in a position to learn how their involvement affects the development of infrastructure in schools. Hence, they will be encouraged to put more efforts in supporting head teachers, teachers, parents and the government in general in facilitating infrastructure development in schools.

The government through the Ministry of Education Science and Technology (MoEST) are also hoped to benefit from this study. Establishing the major challenges facing infrastructure development, MoEST is expected to support the head teachers to improve the quality and quantity of infrastructure in schools and thereby improving the learning environment. Through this study, the assessment results can be guideposts that would help policy makers to restructure the current policies as well as develop new policies which may help in supporting infrastructure development in schools. Moreover, the policies can also be restructured so as to create an easy flow in the procurement processes of materials required for infrastructure development in the schools.

This study is also expected to contribute to general knowledge on the areas of infrastructure development in schools in the third world countries. The research will provide adequate, relevant and more current information on how community

involvement, policies and regulations, parents' attitude affect infrastructure development in public schools in Kenya.

### **1.7 Limitations of the study**

According to Kombo (2006), limitations refer to the hurdles a researcher anticipates over which they have no control. Kathonziwani Division has schools which are far apart and many are not served by any form of public transport due to the poor state of the roads. In some cases, reaching school may require hiring of motorcycle transport and it may therefore take long to reach many schools quickly. This was tackled by planning well and arranging for advance transport as may be necessary. Another limitation of this study is that it was only carried out in one district. Thus the information obtained may differ from other districts in the country.

### **1.8 Delimitations of the study**

Delimitations are the boundaries of the study in terms of geographical coverage (Oso and Onen, 2009). The study was conducted in public primary schools in Kathonziwani Division, Makueni County, Kenya. The respondents were head teachers from the public secondary schools in Kathonziwani Division, BOM and PTA chairpersons, AEO, DQASO and DEO officials. Head teachers from private schools in the division did not form part of the respondents because their management policies differ from one school to another and their funding methods are also not similar to those of public schools.

## **1.9 Basic assumptions of the study**

The study was carried on the assumption that:

- i) Head teachers were capable of identifying their roles in infrastructure development including pointing out challenges and expressing their opinions on alternative approaches of raising funds.
- ii) Respondents would be willing to participate in the study and engage in giving honest responses to the questions that the researcher seeks to answer.

## **1.10 Definition of key terms**

**Adequacy of funds** refers to the availability of financial resources required by public primary schools for infrastructure development.

**Community involvement** refers to the extent to which the members of the society willingly engage in infrastructure development processes in public primary schools.

**Challenge** refers to any difficulty experienced by head teachers as they raise funds for developing school infrastructure

**Influence** refers to what prompts the head teacher to seek funds mobilization for infrastructure development in their schools

**Infrastructure** refers to the physical facilities in the school such as classrooms, teachers' houses, staffroom, offices, water systems, kitchen and toilets.

**Parents' attitude** refers to parents' perception of their responsibilities towards infrastructure development in public primary schools.

**Policies and regulations** refer to the mechanisms and principles put in place to aid in the infrastructural development processes in public primary schools.

**Public primary school** refers to a school that is maintained at public expense for the education of the children of a community or district and that constitutes a part of a system of free public education offered by the Government of Kenya, and guided by the national curriculum in offering instruction to pupils.

**Resource** refers to a source of supply, support, or aid, especially one that can be readily drawn upon when needed.

### **1.11 Organization of the study**

The study was organized into five chapters. Chapter one covered the background to the study, statement of the problem, purpose of the study, limitations of the study, delimitations of the study, objectives of the study, research questions, significance of the study, some assumptions of the study, definition of significant terms and organization of the study. Chapter two was concerned with literature review. It contained infrastructure development in schools, influence of funds on infrastructure development, influence of government policies on infrastructure development, community's involvement in infrastructure development, parents' attitude and infrastructure development, summary of literature review, theoretical framework, conceptual framework and. Chapter three discussed the methodology of this study. This presented the research design, the target population, sample size, sampling procedures, research instruments, validity of the instruments, data collection procedures, data analysis techniques and ethical considerations. Chapter four presented the analysis presentation and discussion. Chapter five covered the summary, conclusions and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents the related literature reviewed on the factors influencing resource mobilization for infrastructure development. The literature reviewed is obtained from online articles, books and journals among many others. The chapter is presented based on the research objectives.

#### **2.2 Infrastructure development in schools**

Infrastructure development continues to be an issue raised by various stakeholders not only in the economic sector any given country but also in the educational systems. With the increased enrollment, school administrations find it a challenge to provide enough facilities to cater for the educational needs of the pupils. It may be observed that in sub-Saharan Africa (inclusive of Kenya) and the poorest countries in Asia, the challenge of providing adequate primary education facilities is huge. To meet the Education for All target of providing universal access to primary education worldwide it has been estimated that up to 10 million classrooms need to be built at a cost of US\$72 billion (World Bank, 2003).

In sub-Saharan Africa alone it is estimated that up to US\$30 billion will be required to address the shortfall in provision of suitable and safe learning environments. Typically, classrooms are overcrowded, many buildings and other facilities are

inadequate, sites are poorly planned and there is little maintenance. This situation is not conducive to good teaching and learning (Bonner, Kalra, Leathes, Das & Wakeham, 2010). According to these observations, it is paramount for Kenyan government among various other stakeholders to put more efforts in ensuring that not only policies are designed to promote infrastructure development, but the who society and community at large are reinforced and motivated to take part in the infrastructure development process in schools.

Where there are limited resources it is important that they are they targeted efficiently and equitably. This is often not the case and facilities are not constructed in a way that effectively matches demand. Even where average pupil/classroom ratios are high, it is not uncommon to find schools where there are unused or underused facilities. In Guinea, as many as 16% of classrooms were recorded as unused in 2000 and in Madagascar the number was about 7% in 2005. This is because of a tendency to construct schools with a standard number of classrooms rather than with the number of classrooms required by the actual and planned enrolment. The provision of smaller schools in rural communities can result in more efficient use of resources, reduce traveling distances and increase access (Theunynck, 2003).

Infrastructure development in schools not only entails the construction of new facilities but it also includes repairs and maintenance of the already existing infrastructure. In most of the primary schools, no proper mechanisms have been set

to aid in infrastructure repair and maintenance. As such, old facilities continue to deteriorate and thus posing insecurity risks to the learners. It may be noted that investments in repairs and maintenance are very cost effective but have historically received little priority or attention from governments or development partners. The current deficit of classrooms is due in part to poor maintenance of the existing building stock. In order to obtain the maximum value for money from educational facilities it is essential that their lifecycle costs are minimized and that they remain serviceable throughout their life (Bonner, Kalra, Leathes, Das & Wakeham, 2010).

A study carried out by Lawther (2009) on the review of infrastructure development approaches in the Solomon Islands indicated that infrastructure development projects in schools were being faced by a number of issues. These included the quality of construction and design, timeliness of delivery, cost, coverage, community empowerment, implementation and future maintenance. Strong community support for schools and education was offset by policy implications due to “fee free” education; the under-utilization of existing infrastructure space and land issues regarding education infrastructure and communities’ dependence on foreign aid.

### **2.3 Influence of funds on infrastructure development**

Financing of education refers to the funding of school conditions and resources to meet quality standards, spending on education inputs to achieve learning goals, allocating adequate revenue flow to enhance performance and monitoring the budgeted resources for education. In 1974, the World Bank report on education

suggested a number of broadened sources of revenue for education beyond the limits of regular government budgets which included various methods by which those who received education could pay greater share of its cost (Sifuna, 1990). It is with these trends that the infrastructure was somehow neglected (Olembo, 1985). This state of affairs was to manifest greatly with the introduction of free primary education (FPE) in Kenya in 2003. At one-point three million new pupils entered into the country's primary schools overwhelming school infrastructure (UNICEF, 2005). The 2003 school facilities census estimated that, nationwide, there was a shortfall of 43,000 classrooms although was not clear what proportion of these are existing semi-permanent (MoEST, 2007).

Funding for physical infrastructure in primary school, has over the years been part of the overall school financing. Physical infrastructure funding will involve the funds or efforts expected on building, land, physical environment, furniture and black wall either in form of repair and maintenance, construction and infrastructure management. Primary school physical infrastructure funding has been a challenging undertaking especially due to scarcity of resources and capacity constraints (Elcher, 1989).

Funding for physical infrastructure is by communities, parents and government. Community funding is very effective in cases in which the community desires to make future sacrifices to satisfy the practical needs. External help should just be a supplement (Theunynck, 2003). One of the most significant external funding bodies

for education is the World Bank which in 1963 issued its first educational loan targeting infrastructure (World Bank, 1988).

Funding for school facilities in Africa was greatly emphasized at independence (Otiende, Wamahiu & Karugu, 1992). However the cost of providing it was found to be three times higher compared to the developed world. This led to self-help where parents became more responsible for capital investments in education (Bogonko, 1992). These trends led to infrastructure neglect. This was manifested greatly with the introduction of FPE in which the enrollment of pupils in school overwhelmed the infrastructure available. This study intends to investigate how funds and grants influence the mobilization of resources used for physical infrastructure development in public primary schools in Kathonzweni Division.

#### **2.4 Community involvement and infrastructure development in primary schools**

After independence, most African countries concentrated their attention on expansion of educational facilities to achieve access and equity (Otiende, Wamahiu & Karugu, 1992). In 1961, a joint conference organized by the UNESCO (United Nations Educational and Cultural Organization) and United Nations Economic Commission for Africa noted that the cost of producing any quality education was three times higher in developing countries than the developed. It was suggested that education cost could be reduced by for example, greater help in self-help building. Many African countries had experienced deficits in that; they had to implement the Addis Ababa conference. In 1960s communities, parents and local authorities were

principally responsible for capital investment in primary education throughout East Africa (Bogonko, 1992). The communities' contributions ranged from poles, thatch cash and labour. In many parts of the world especially the developing world, funding primary school education infrastructure has been largely dependent on local community. For instance in Burma, the Parents' Teachers Association (PTA) has a major input in financing education (Black & Scendlen, 1980).

A survey of 1972/73 by the Ministry of Education there revealed that the PTAs provided for 21.2% of the cost of building 63.8% of the cost of furniture and equipment, 63.4% repairs and 87.7% of general contingencies. In Malaysia, it is the parents associations (PAs). The role of the parents associations is primarily that of material support; for example, contributing to building of school halls, canteens and adding classes. Thinh (1991) observes that the PAs have come to play a central role in construction and maintenance of building and facilities in association with the local education councils. PAs persuade and encourage local production and trading establishments in building educational facilities. In Vietnam, most primary schools have been built by people through the PAs and the local educational councils. The association is also involved in the provision of desks, benches and in teaching aids (Thinh, 1991).

A close connection was found between the presence of religious organizations and the community action activities. This has been attributed to the religious motivated sentiments of altruism and philanthropy (Grier, 1997). Salomon and Anheier

postulated that Christianity and particularly Protestantism permit the flourishing of the community actions because of its emphasis on individualism and its strong independence from state control. Gaduh (2012) also found that different religions had different impacts on the rise of the community action depending on the weight they assigned to charitable acts in terms of time and resources, supporting individual action, commitment to institution building and their relationship with the country.

Ministry of Education (2009) comments that community contribution either in terms of financial resources depending on the economic level or in kind is required to support government and other pertinent contributions. Communities are expected to provide firewood, employ a cook, provide kitchen utensils, cooking water and monitor the utilization of the project's funds, as part of their contribution (MOE, 2009). This study will seek to find out the roles communities play in infrastructure development in primary schools in Kathonzweni Division.

## **2.5 Government policies and infrastructure development in primary schools**

Countries and any of its operations are governed by different regulations and policies put in place. The same also applied in the education sector. Through the ministry of education, the government has been able to set up policies which guide the way things are run in the various schools in the country. The status of infrastructure development in schools has also been captured within the government policies and regulations in the educational sector. It can however be observed that despite the prevalence of polices and regulations still the status of physical infrastructure in

some of the public primary schools may not be up to standards. This may be due to a number of issues such as vandalisms, corruption in the infrastructure development projects and various stakeholders not taking their responsibility seriously among many others.

There are various specifications which have been provided when it comes to physical infrastructure in schools. According to UNESCO (2005), appropriate and sufficient building, child friendly, safe environment enhance child rights. The Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoE, 2005). This emphasizes the importance of complying with Education Act (Cap 211) and Public Health Act (Cap 242). The manual discusses size and number of physical infrastructure for resistance and recommends the need for sufficiency. According to these acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users. However, one may find that the quality of such infrastructures in the respective public schools is inadequate. Moreover, the available facilities are always in poor conditions.

The government policies and regulations also specify that sanitation infrastructure must be safe and built to the required standards. Pit latrines should be built at least 10 metres away from tuition blocks. When ablution block is attached to the other

buildings a high degree of cleanness must be maintained. Pit latrines should be at least 15 metres away from a water point. In mixed schools, girls' sanitation facilities must be separate and offer complete privacy. In construction of sanitation facilities, the following must be observed. The first thirty learners, 4 closet holes. A maximum of 270 learners: one closet for thirty learners. In all schools, appropriate provision should be given to learners with special needs (MoE, 2005).

Various government policies which have been put more emphasis in the Kenyan schools have not solely addressed on the areas of infrastructure development. For instance, one good policy is that of Free Secondary Education (FSE) policy. This policy has been implemented with a main objective of ensuring that deserving children from poor family backgrounds do not miss out on secondary education. as such, this policies misses out on addressing how infrastructures may be put in place so as to support those children from poor backgrounds to accessing education in schools that have good infrastructure and a conducive learning environment (Mbayah & Maende, 2011).

According to an observation made by Republic of Kenya (2010) and Chiuri and Kiumi (2005), poor educational policies which lead to unchecked arbitrary increase of school fees and other levies like teachers motivation, purchase of school bus among others in schools poses a challenge in to the government of Kenya in effectively implementing the FSE policy as well as ensuring that it provides an avenue for infrastructure development consideration in the respective schools.

As it has been reviewed in this section, there are indeed a number of provisions which have been made by the government concerning the state of infrastructure in primary schools. However, one question that still lingers in individuals' minds is, what then is the issue that has led to the prevalence of poor infrastructural development in schools despite government policies having been put in place to address on the issue? Moreover, there are no much empirical studies which have been done on the influence government policies on infrastructure development in schools. As such, this study intends to examine how then the government policies are influencing infrastructure development in primary schools in Kenya.

## **2.6 Influence of attitude on infrastructure development**

The attitude that different stakeholders have may influence the extent to which infrastructure may be developed in schools. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. Multistage random sampling was followed in collection of data from 572 students of different schools located in 6 high and 6 less literate rural blocks in 6 different districts of West Bengal. Four questionnaires were developed to assess (a) Demographic and socio-economic conditions (b) Attitude towards school infrastructure (c) School attendance motivation and (d) Academic performance of students. Nine attitudes (cleanliness, safety, comfort, adequacy, exploring, reliability, easiness, equal opportunity, willingness to participate in school activities) towards school infrastructure were initially conceptualized and accordingly one highly reliable (Kuder Richardson reliability = 0.90) 68-item questionnaire was developed.

Results revealed that attitude varies with differences in religion, socio economic status, districts, literacy rate of blocks, and with available school infrastructure facilities. The study also found out that attitude determines one's motivation to use infrastructure.

The involvement of community members in the infrastructural development is also a key element which may be largely influenced by the type of attitude that they have towards their responsibilities. A study by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure. It was shown that if the public positively viewed the infrastructure as being beneficial, they directly engaged themselves in developing the infrastructure and vice versa.

Another study was carried out by Gbolagade, Omotesho, Komolafe, Oni & Adereti (2014) to examine rural youth participation in infrastructural development in Isin local government area of Kwara State, Nigeria. Data were collected with the aid of a questionnaire, which was analyzed using frequency count and percentages. Chi-square analysis was used to test the hypothesis of significance between the socio-economic characteristics and the level of participation in infrastructural development. Besides, in infrastructural development as well as the associated constraints which include finance, availability of materials, technical knowledge and time, attitude was raised as a key issue which influenced the participation of youth in infrastructure development. The limitation of this study was that it only focused on

infrastructural development in the community and thus there is need for the current study to be done to investigate on how attitude influence infrastructure development in schools.

It is widely recognized that parents can provide valuable help for their children by showing that they are interested in their school work and see the value of what they study at school. There is strong evidence that this form of support can have a real and positive effect on performance of children at school and, therefore, on their future (The Scottish Office, 2002). The same concept applies also when it comes to parents showing interest on the learning environments of their children. The interest shown is an indication of positive attitude towards infrastructure development. Lack of interest among parents in the infrastructure of schools that pupils use in their learning process may influence their extent of involvement in the development of infrastructure in schools.

Moreover, the attitude of parents in the development process of infrastructure is very important. Through positive attitude, parents may get themselves involved in various ways. These ways include but may not be limited to being involved in decision making processes at school level, collaborating with the community by identifying and integrating resources and services from the community to strengthen school programmes and infrastructure development, family practices and student learning and development (Nandango, Obondoh & Otiende, 2005).

## **2.7 Summary of literature review**

The literature review has shown the importance of effectiveness of physical infrastructure funding in primary schools has shown that any study of school funding has to take into account school physical infrastructure (Crampton & Thompson, 2003). The review has also attempted to establish a link between a school's physical infrastructure funding and quality education. Studies also show that effective school physical infrastructure funding will positively affect school quality (American Federation of Teachers (AFT), 2008). However, most studies (UNESCO, 2010; Crampton & Thompson, 2008), have concentrated on the effect of infrastructure funding on specific learning outcomes for example, teacher and student motivation. The literature review also suggests that funding for physical infrastructure in school is a good investment that gives positive outcomes (Mabula, 2011). However, there is little that has been done to study infrastructure development in primary schools, with more specificity to Kathonzwani Division.

## **2.8 Theoretical framework**

This study was guided by the Reinforcement theory of B.F. Skinner developed in 1953. This is a fundamental learning theory based on the premise that it is believed that behaviour is a function of its environment. Positive school environment includes the infrastructure and other facilities which make the learning environment better. This is positive 'reinforcement' which supports learning.

There are a number of strengths which have continuously supported the prevalence of reinforcement theory in many organizations. These strengths include the fact that it Provides clues to motivation, keeps employees involved, it is easily applied in any given setting and Impressive research support (Redmond, 2010). Despite the strengths, there are a number of challenges which are faced in the application of the theory. These challenges/weaknesses include difficulty in identifying rewards/punishments, hard to apply to complicated forms of behavior, imposes on freewill and it effectively often expires. Moreover, reinforcement theory also disregards internal motivation.

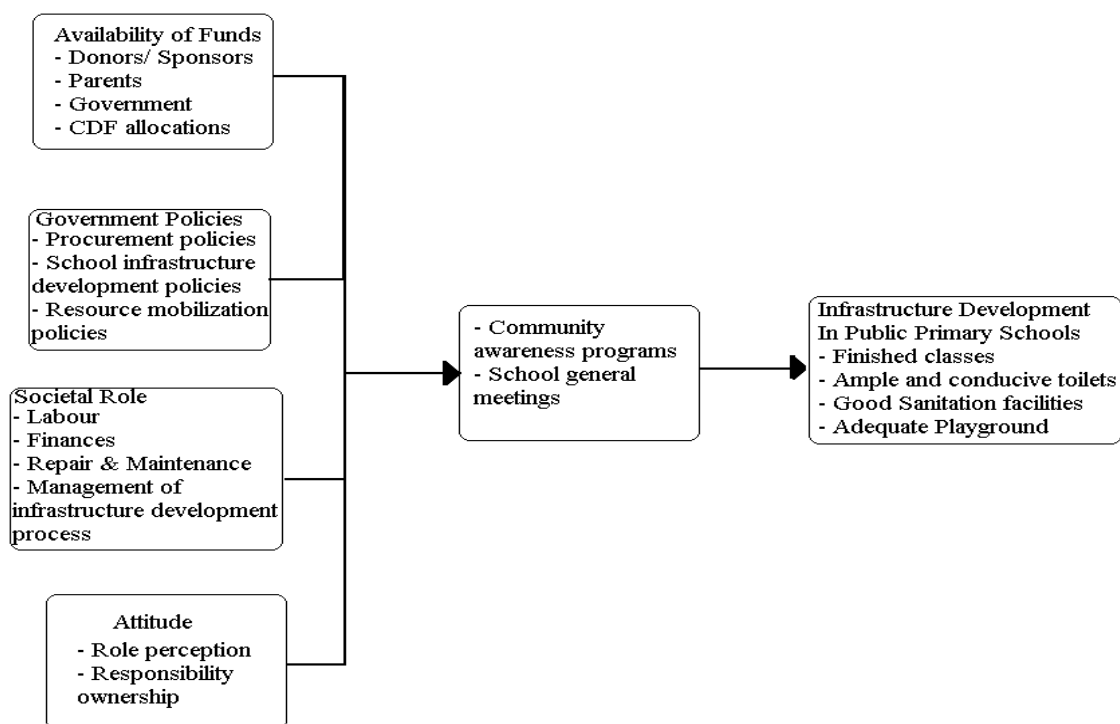
In the context of this study, reinforcement theory was found to be much more relevant. The theory was considered appropriate because the learning environment created by having suitable infrastructure in school forms part of a conducive environment for the learners. This is realized in the form of appropriate classroom, sufficient desks, toilet facilities, a kitchen to cater for their meals and playground for physical fitness and even spacious and well-tended lawns where children will relax during their free time form class.

Moreover, when the head teacher ensures that such facilities are available, they are involved in helping to set a suitable environment for nurturing good behaviour which is expected to translate into better performance by children. The good learning environment as a reinforcement factor serves to nurture and support good behaviour for the pupils. In the absence of such facilities, the learning environment is

compromised and the learners may not have sufficient support to influence them towards the desired behaviour change that the school should build in them.

## 2.9 Conceptual framework

This study conceptualizes that the dependent variable depends upon various other independent variables. Development of infrastructure in schools has been considered as the dependent variable which depends upon various independent variables which include availability of funds, government policies, role of the community and stakeholders' attitude. These processes considered in the mobilization of resources for funds include fundraisers, grants, labour, school fees and sponsorships. The relationship between the variables is as summarized in Figure 2.1.



**Figure 2.1: Factors influencing infrastructure development in public primary schools**

As it has been conceptualized in this study, there are various factors which affect infrastructure development in public primary schools. These include availability of funds, government policies, societal role and attitude. To begin with, schools may try to evaluate the amount of funds they have and see whether it can facilitate the process of infrastructure development in schools. Without funds, schools may not develop new or even repair the already available physical infrastructure. On the other hand, the government policy provision also does influence the development of infrastructure especially in public schools. These schools are always under the management and control of the government. As such, if the policies formulate do not address the infrastructure development in the school, no progress will be experienced.

The involvement of society and attitude are two key factors which go hand in hand together. It may be observed that if the society that is inclusive of parents have negative attitude towards infrastructure development in schools, then they will not be involved in the process and vice versa. Moreover, the roles of the societal members which include provision of labor, finances, repair and maintenance may not be fully achieved if the participants have a negative attitude. For these factors to be properly utilized so as to facilitate infrastructure development there are a number of processes which are to be put in place. These include constant community awareness programs on infrastructure development and school general meetings where parents are encouraged to participate in the infrastructure development process. Through this process, the schools are able to improve on infrastructure development in schools.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

This chapter presents the research design, target population, sample size and sampling procedures, research instruments, data collection procedure and data analysis techniques.

#### **3.2 Research design**

Research design is a logical and valuable way of looking at the world (Gall, Borg & Gall, 2003). A descriptive survey research design was used in this study. This design was used because it enables investigation into the subject under study. Gay and Airasian (2000) indicate that descriptive survey design is used on preliminary and exploratory studies to enable the researcher collect information, summarize, present and interpret for clarification purposes.

In the context of the study, the research design enabled the researcher to collect information from various key respondents on the factors influencing infrastructure development in public primary schools in Kathonzweni division. This was through the help of questionnaires, interview guides and observation guide.

#### **3.3 Target population**

This study was conducted in all public primary schools in Kathonzweni division of Makueni County. According to records obtained from the office of the DEO

Kathonzweni district, this division has 27 public primary schools. The target population consisted of 27 head teachers, the DEO, the DQASO and the AEO. Additionally, the B.O.M chairpersons (27) and 27 PTA chairpersons also targeted in the study.

### **3.4 Sample size and sampling procedures**

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda & Mugenda, 2003). This subgroup was carefully selected to be representative of the whole population with the relevant characteristics. Each member or case in the sample is referred to as subject, respondent or interviewees. The sample for this study consisted of 27 head teachers, 27 Board of Management and 27 PTA Chairpersons, DEO, DQASO and AEO. In total, the sample size for this study was eighty four (84).

Sampling is referred to as a process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group (Orodho, 2004). A census sampling method was used in this study to select all head teachers, B.O.M and PTA chairpersons. This sampling method was used in this study owing to the fact that the respondents are few and thus for comprehensive data to be obtained it was necessary to select all of them. In total, 27 head teachers, 27 PTA chairpersons and 27 B.O.M members were selected to participate in the study.

On the other hand, purposive sampling method was used to select the DEO, DQASO and AEO. This sampling procedure was used simply because these respondents held key positions in the education sector in the district and thus they were in a better position of providing adequate, relevant and key information on the area under study. moreover, these respondents were held as key informants in the study.

### **3.5 Research instruments**

This study employed questionnaires, interview guides and an observation checklist.

#### **Questionnaires**

A questionnaire is a research instrument that gathers data on a large sample, save on time, and can uphold confidentiality. According to Lovell and Lawson (1970), questionnaires are widely used in education to obtain information about current condition and practice, and to make attitudes and opinions. Further, Best and Khan (2003) points out that a questionnaire enables a person administering them to explain the purpose of the study and to give meaning of the items that may not be clear. They have the advantage of asking specific questions which call for specific answers. The answers can be classified and the information contained in the responses quantified. In this study the questionnaires was expected to elicit information from head teachers. The questionnaire was structured based on the research objectives.

#### **Interview guide**

Interview guide was used because they yield highest cooperation and lowest refusal rates, offers high response quality and takes advantage of interviewer presence and

its multi-method data collection, which combines questioning, cross-examination and probing approaches (Owens, 2002). The researcher interviewed the Board of Management (B.O.M) and Parent Teacher Association (P.T.A) chairpersons, AEO, DQASO and DEO to elicit information that met the study objectives. The interview guide was semi-structured (with some closed and open ended items) and was divided into two main sections, namely demographic characteristics of the respondents and the factors that influence infrastructure development in public primary schools.

### **Observation checklist**

The researcher also observed the infrastructural facilities and school records to help in assessing their levels of infrastructure development. Observation makes the observer to detach himself from the social setting being investigated and allows him to gain a more objective view of the reality being investigated (Scott & Usher, 2004). Moreover, the checklist was used to assess the quality, quantity and conditions of the infrastructure.

### **3.6 Validity of instruments**

Validity is concerned with establishing whether the instruments are measuring what they are supposed to measure (Gay, 1992). Orodho (2009) defines it as the degree to which a test measures what it purports to be measuring. It is an important characteristic of a scientific instrument. It is correlation of a test with some outside independent criteria which are regarded by experts as the best measure of the trait. Singh (1986) and Orodho (2009) tend to concur that validity is concerned with

general ability. When a test is valid, it means its conclusion can be generalized in relation to the general population. The researcher used peer review of the instruments to test their validity and also sought for expert knowledge of the supervisors to ascertain their validity. Three public schools from the neighboring Mavindini Division were used as a pilot study to pre-test the validity of the instruments.

### **3.7 Reliability of instruments**

Kombo and Tromp (2006) define reliability as the degree to which a test consistently measures whatever it measures. That is, the ability to consistently yield the same results when repeated measurements are taken of the same object under the same conditions (Gay, 1999). To establish the reliability of the research instruments, the researcher carried out a pilot test of the instruments using another similar group with the same characteristics as the one targeted in the study. The reliability of the instruments was computed using Cronbach's Alpha reliability coefficient method. The most common internal consistency measure is Cronbach's alpha, which is usually interpreted as the mean of all possible coefficients.

The data was computed using SPSS computer program to determine Cronbach's reliability coefficient. The respondents for the pilot test were picked from 3 public primary schools from the neighboring Mavindini Division. These schools and the respondents did not form part of the actual study. After filing the questionnaires, they were collected, scored and manually tested for reliability. The correlation coefficient found was 0.8. According to an observation made by George and Mallery (2003), if a

Cronbach's reliability correlation coefficient is greater or equal to 0.7 is obtained then the questionnaires are treated as reliable. As such, the questionnaire was held as reliable. On the other hand, the interview guides and observation checklist were not tested for reliability.

### **3.8 Data collection procedures**

First, the researcher requested for an introductory letter from University of Nairobi. He then sought for a permit from the National Commission for Science, Technology and Innovation (NACOSTI). This was presented to the District Education Officer in charge of Kathonzweni for authority to carry on with research in the study locale. The researcher then visited the schools for introductory purposes and requested for appointment from the head teachers about when to administer the instruments to the respondents.

The questionnaire was administered in person and collected once filled. The researcher also booked meetings with the BoM and PTA chairpersons for the interviews. The interview was conducted in a conducive environment. Moreover, during the distribution of the questionnaires the researcher was also observing the various infrastructures in the school and thus ticking the observation checklist according the prevailing conditions. Lastly, a meeting with the DEO, DQASO and AEO was also organized and the interview conducted. Once the data collection was done, the data was picked and used for analysis.

### **3.9 Data analysis techniques**

Collected data was first checked for completeness before analysis. Data analysis involved both qualitative and quantitative. Quantitative data was analysed using descriptive statistics, which involved a process of transforming a mass of raw data into tables, charts, with frequency distribution and percentages which formed a vital part of making sense of the data (Mugenda, 2003). The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) program and presented using tables, graphs and pie charts and prose form to give a clear picture of the research findings at a glance. The qualitative data was subjected to analysis by synthesizing the responses and thematically arranging them in conformity with the study objectives. This helped the researcher to summarize the information and present them as discussions on infrastructure development in schools.

### **3.10 Ethical considerations**

In this study, the rights of the research participants were ensured. This was done based on ensuring that the principles governing research participants were followed. The principle of voluntary participation which requires that people are not coerced into participating in research was followed. The informed consent of the participants was also ensured by explaining the aim of the study and the procedures involved. The participants' information was confidential. Further the principle of anonymity was also adhered to. The participant remained anonymous throughout the study.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

The chapter is presented based on the following sections: response rate, background information of the respondents, availability of funds and infrastructure development in schools, role of community in infrastructure development, policies and regulation on infrastructure development and stakeholders' attitude and infrastructure development.

#### 4.2 Response rate

This section presents the response rate of the respondents who participated in the study. During data collection, the researcher issued twenty seven questionnaires to the head teachers, twenty seven interview guides to the PTA and B.O.M respectively and one interview guide for AEO, DQASO and DEO respectively. The results are presented in Table 4.1

**Table 4. 1: Instrument response rate**

<b>Respondents</b>	<b>Issued instruments</b>	<b>Received Instruments</b>	<b>Percentage (%)</b>
Head Teachers	27	27	100
PTA	27	25	92.6
B.O.M	27	24	88.9
AEO	1	1	100
DEO	1	1	100
DQASO	1	1	100
<b>TOTAL</b>	<b>84</b>	<b>79</b>	<b>94%</b>

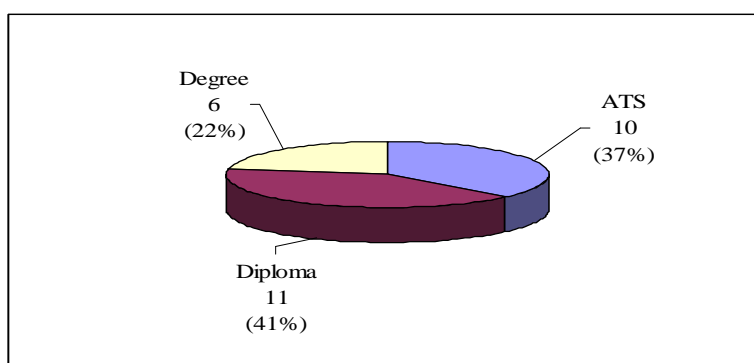
A total of 84 instruments were given to the respondents. However, only 79 instruments were received that had been fully responded to. This translates to a response rate of 94%. This representation is good enough for the data analysis.

### 4.3 Background information of head teachers

The head teachers who participated in this study were given a number of questions for background information. These questions captured elements such as educational qualification, working experience, number of pupils enrolled in schools and the conditions of the available infrastructure in public primary schools.

#### 4.3.1 Highest educational qualification

The head teachers were asked to give their highest educational qualification. The educational qualification was asked so as for the researcher to establish the educational qualification of teachers in schools who are involved in infrastructure development. This was categorized into P1, ATS, Diploma, Degree and Masters Degree. However, only a few academic qualification responses were provided. These are as summarized by Figure 4.1.

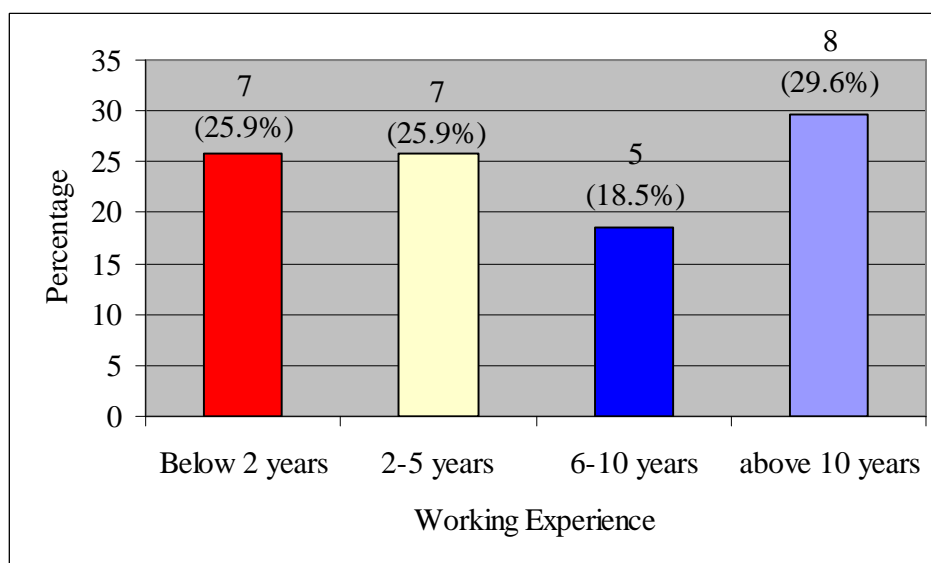


**Figure 4. 1: Distribution of the head teachers by their highest education qualification**

The data in figure 4.1 indicates that majority of the primary school head teachers 11 (41%) had a diploma as their highest educational qualification. Slightly more than a third of them 10 (37%) however indicated that they had been able to achieve a degree as their highest academic qualification.

### 4.3.2 Working experience

The working experience of the head teachers was also looked into in this study. The working experience of the teachers was looked into so as to establish the period individuals have been involved in the infrastructure development processes in the school. This was categorized into below 2 years, 2-5 years, 6-10 years and above 10 years. The data is presented in Figure 4.2.



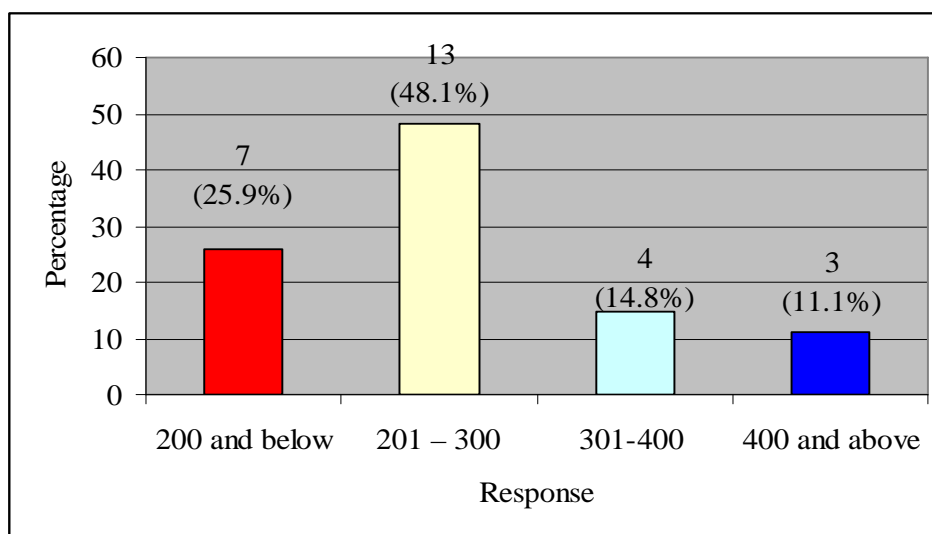
**Figure 4. 2: Distribution of head teachers by their working experience**

The data in figure 4.2 shows that there is an even distribution of head teachers with reference to working experience. Slightly more than half of the head teachers 14 (51.8%) had a working experience of less than 5 years whereas 48.1% of them had a

working experience of more than 6 years. The distributions however show that most of the teachers in the public primary schools indeed have been in the schools for quite a good period to be in a position to facilitate infrastructure development processes in schools.

### 4.3.3 Number of pupils enrolled in schools

The head teachers were further asked to state the number of pupils attending their respective schools. The information or numbers provided were further summarized into the following categories 200 and below, 201-300, 301-400 and 400 and above pupils. The responses are as summarized by the Figure 4.3.



**Figure 4. 3: Distribution of head teachers response on the number of pupils enrolled in schools**

Figure 4.3 shows that slightly less than a half of the head teachers 13 (48.1%) indicated that the number of pupils attending their respective schools ranged from 201-300 pupils. Slightly more than a quarter of them 7 (25.9%) however indicated

that the number of pupils was not more than 200. according to these distributions, it may be deduced that indeed public primary schools contain quite a number of pupils and thus their population may pose a challenge to the available infrastructures.

#### 4.3.4 Conditions of the available infrastructure in school

The head teachers were further asked to rate whether the conditions of the various infrastructures in the schools were good, very good or poor. The infrastructure listed included classrooms, school furniture, toilet, kitchen and water point/tanks. Table 4.2 present the data.

**Table 4.2: Distribution of head teachers responses on the quality of infrastructure in schools**

	Good		Very Good		Poor	
	F	%	F	%	F	%
Classrooms	23	85.2	-	-	4	14.8
Furniture	20	74.1	-	-	7	25.9
Toilet	16	59.3	1	3.7	10	37.0
Kitchen	12	44.4	1	3.7	14	51.9
Water point/ Tank	13	48.1	6	22.2	8	29.6

Table 4.2 shows that majority of the head teachers were positive that the conditions of the infrastructure in schools were in a good state. However, there are those schools in the district which have infrastructures that are in a poor state. One of the leading infrastructures that are in poor conditions in the schools is the kitchen

(51.9%), followed by toilets (37%), water points/tanks (29.6%) and school furniture (25.9%) respectively.

The researcher also looked at the conditions of the infrastructure with the help of the observation guide. Through the guide, it was found that not all the schools in the division had quality infrastructure. Moreover, some of the classes had deteriorating facilities and this posed a great challenge on the learning processes in the school. Moreover, the researcher also observed that there were certain schools which had unfinished structures in the school. Other infrastructural elements that were found to be inadequate in the schools compare to the ratio of students available included play grounds, classrooms, toilets and water points. This finding justifies a previous research which was done on the impact that the enrollment rates had on infrastructure in schools. According to an observation by the UNICEF (2005), the increased enrollment of pupils in schools since the inception of free primary education has contributed to increased pressure on the available infrastructure.

#### **4.4 Availability of funds for infrastructure development**

Availability of funds plays a critical role when it comes to initiating projects on infrastructure development. When the funds are inadequate, then the projects may not be able to progress effectively. As such, this study sought to establish how adequacy of funds affected infrastructure development in primary schools in Kathonzweni Division.

#### 4.4.1 Methods Used To Raise Money to Develop Infrastructure in Schools

The head teachers were asked to indicate the methods that they used to raise money to develop infrastructure in schools. The methods that were suggested included government allocations, CDF funds, religious organizations, school fees, parents' contributions and donors. The data is presented in Table 4.3

**Table 4.3: Distribution of head teachers on the methods used to raise money for infrastructure development in schools**

	Yes		No	
	F	%	F	%
Parents Contributions	23	85.2	4	14.8
Government allocation	20	74.1	7	25.9
CDF	18	66.7	9	33.3
Donors	9	33.3	18	66.7
Religious organizations	7	25.9	20	74.1
School Fees	5	18.5	22	81.5

Table 4.3 shows that an overwhelming majority of the head teachers (85.2%) agreed that they used parents' contribution to raise money for infrastructure development in the school. Majority of them (74.1%) also indicated that government allocation was a key method used for generating money to facilitate infrastructure development in the schools. Other key methods suggested by the head teachers included CDF Funds (66.7%), donors (33.3%) and religious organizations (25.9%) respectively.

#### 4.4.2 Source of funds in schools for infrastructure

Further, the head teachers were also asked to specify various sources of funds for different infrastructures available in schools. The sources that were highlighted included fees, CDF, Donors, Parents contribution and Donors. The data is presented in Table 4.4.

**Table 4. 4: Distribution of head teachers on the sources of funds for different infrastructures in the school**

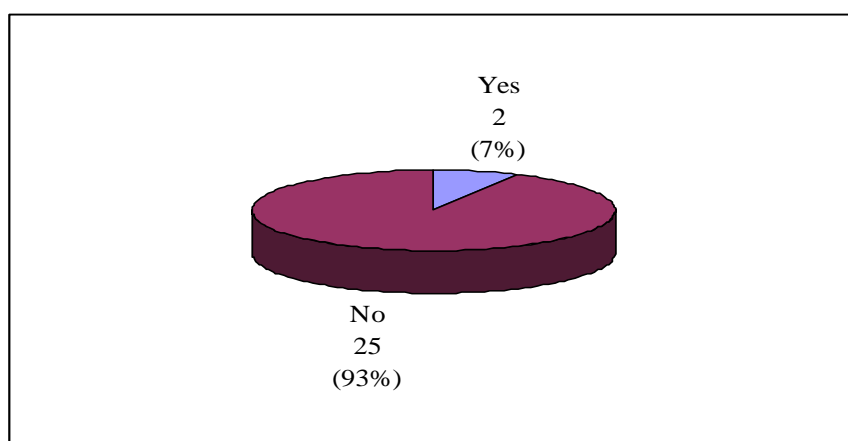
	Fees, CDF, Donors		Parents Contribution		Donors	
	F	%	F	%	F	%
Classrooms	18	66.7	7	25.9	2	7.4
Furniture	6	22.2	18	66.7	3	11.1
Toilet	8	29.6	12	44.4	7	25.9
Kitchen	5	18.5	18	66.7	4	14.8
Water point/ Tank	5	18.5	1	3.7	21	77.8

According to the data in Table 4.4, majority of the head teachers (66.7%) indicated that the funds came from the fees, CDF funds and donors. A quarter of them (25.9%) indicated that the money came from the contributions given by parents towards classroom infrastructure development. When asked to indicate the sources of funds for furniture in schools, majority of the head teachers (66.7%) indicated parents' contributions. Only a few of them (22.2%) indicated the sources to be from Fees, CDF funds and donors.

In terms of toilet, a good percentage of the head teachers (44.4%) indicated that parents' contribution was largely used in the development of toilets in schools. Slightly more than a quarter of them (29.6%) indicated that Fees, CDF funds and Donors were the main sources of funds for the development of toilet faculties. However, from the open ended questions, the teachers indicated that they still faced a challenge in the quality of toilets in the school. Parents' contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in schools. On the other hand, donors are the ones who fund the development of water points/ tanks in the schools.

#### 4.4.3 Whether funds provided for physical infrastructure is adequate

The head teachers further gave their responses regarding whether the funds that were being provided were adequate enough to support infrastructure development in the schools. The data is presented in Figure 4.4.

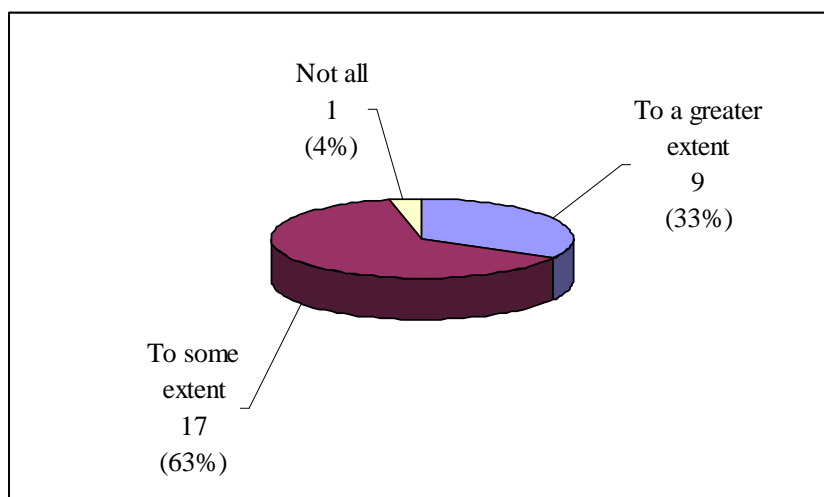


**Figure 4. 4: Distribution of head teachers on whether the funds provided for physical infrastructure development were adequate**

An overwhelming majority of the head teachers 25 (93%) indicated that the funds provided for infrastructure development were not adequate. Only two of them indicated that the funds were adequate.

#### 4.4.4 Extent to which funds influenced infrastructure development in the school

The head teachers were lastly asked to indicate the extent to which funds influenced infrastructure development in their respective schools. Figure 4.5 shows a summary of the findings obtained.



**Figure 4. 5: The extent to which funds influenced infrastructure development in the school**

The results in figure 4.5 show that majority of the head teachers 17 (63%) were in agreement that the availability of funds did influence infrastructure development in their respective schools to some extent. This was further supported by a third of them 9 (33%) who indicated that it did influence but to a greater extent.

In responding on the sources of funding for infrastructure development in schools, the PTA members reported that the school sources its funds for infrastructure development through the parents, donations and CDF and County government. This was further supported by the BoM who also indicated that the parents, donors and the government contributed funds used for infrastructure development in the school. The BoM members also reported that for resource mobilization practices, the school wrote proposals which were then issued to government or possible donors to support the infrastructure development process. The PTA and BoM however indicated that the funds which were being provided were not adequate to support full development of infrastructure in the school. This in the long run led to some infrastructures being left unfinished and thus also posing health risks to the pupils in the schools.

The AEO, DQASO and DEO also gave their own response regarding the sources of funding for infrastructure development in schools. All of them indicated that the key sources included government, CDF funds, MoEST, NGOs, donors and parents. The AEO further went on ahead to report that “Factors that made the sources mentioned above prevalent chooses as the main ways of raising money for funding school infrastructure included school enrollment and availability of general awareness”.

Schools have been suggested as to contribute towards the funding of infrastructure development in schools. This is in line with Elcher (1989) who observed that school financing has been the major source of funding for infrastructure development in primary schools. He further went on ahead to report physical infrastructure funding involved the funds or efforts expected on building, land, physical environment,

furniture and black wall either in form of repair and maintenance, construction and infrastructure management.

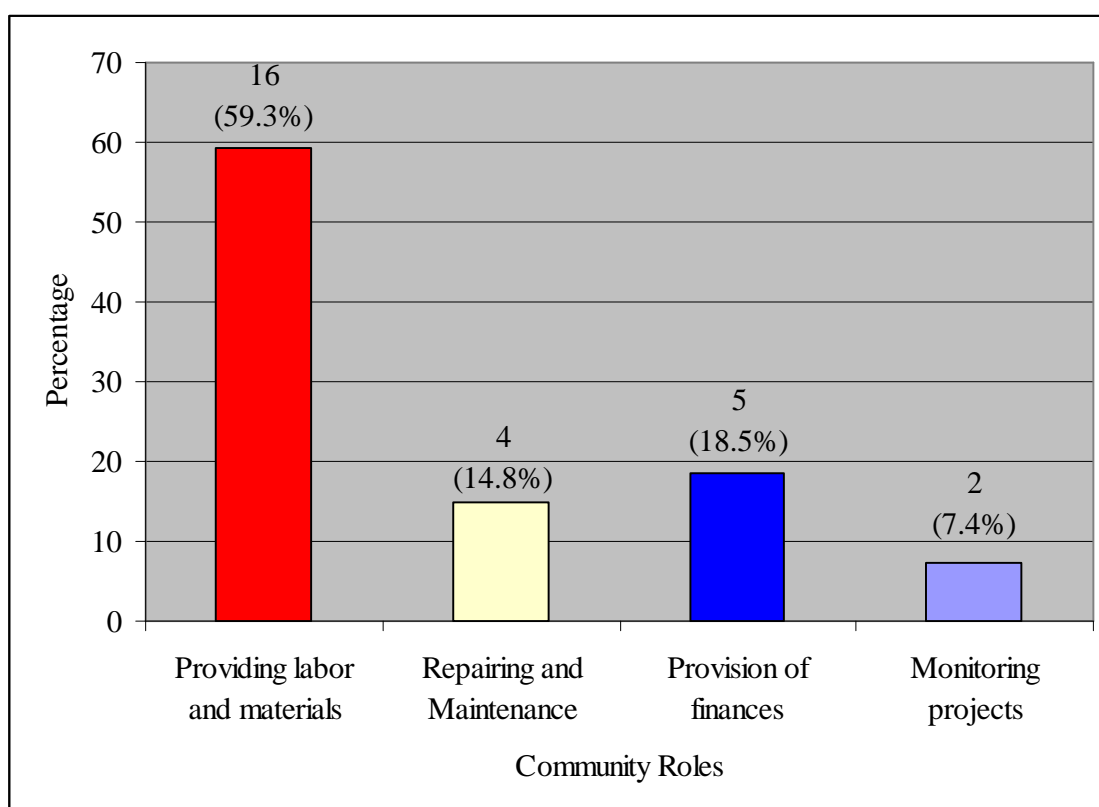
Besides schools being a source of finance, this study has also established that parents, government contributions and CDF funds contributed to the finances used in infrastructure development. This finding concurs with The Unynck (2003) who reported that funding for physical infrastructure was the responsibility of communities, parents and government. Community funding is very effective in cases in which the community desires to make future sacrifices to satisfy the practical needs. External help should just be a supplement. The study also established that donors were also involved in providing finances to support infrastructure development. One of the external donors as noted by World Bank (1988) is the World Bank. It is reported that World Bank is the most significant external funding bodies for education.

#### **4.5 Role of community in infrastructure development**

Infrastructure development in schools may not be effectively or fully realized without the cooperation of the school community members as well stakeholders. This study was thus set to determine how community involvement influenced infrastructure development in primary schools in Kathonzweni Division. To answer this objective, there are a number of questions that were asked. These included the community member roles in infrastructure development, members involved in repairing broken furniture and the extent to which community roles have contributed towards infrastructure development.

#### 4.5.1 Community members' role in infrastructure development

The head teachers were asked to indicate the role that the community members played when it came to infrastructure development in the schools. Some of the roles suggested included providing labor and materials, repairing and maintenance, provision of finances and monitoring infrastructure development projects in the schools. The responses obtained are as shown by Figure 4.6.



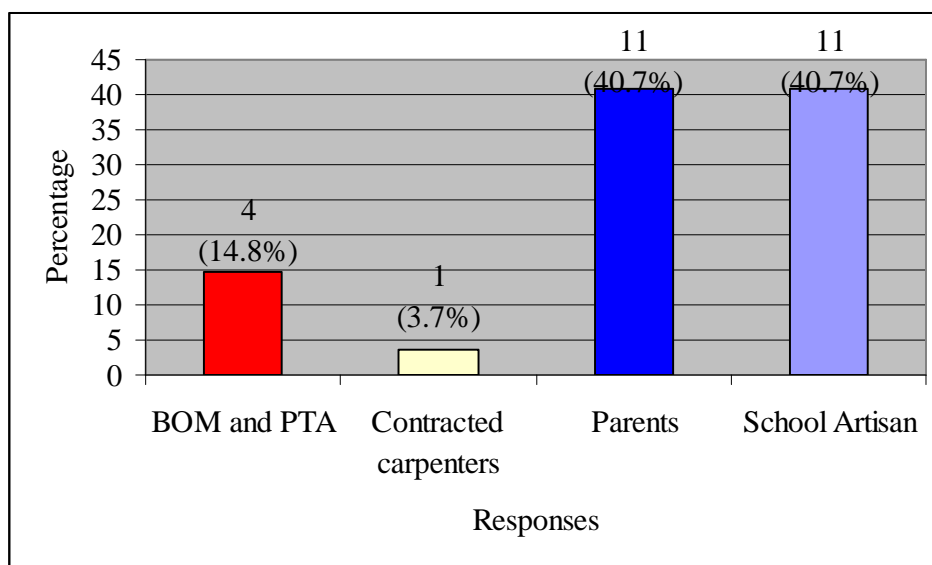
**Figure 4. 6: The role of community in infrastructure development in schools**

The data in figure 4.6 shows that slightly more than half of the head teachers 16 (59.1%) indicated that the community members were involved providing labor and

materials. Other roles played by the community members in infrastructure development included repairing and maintenance and provision of finances.

#### 4.5.2 Members involved in repairing broken furniture

Moreover, the head teachers went on ahead to indicate some of the community members who were being involved in the repairing of broken down furniture in the school. These members included Board of Management, Parent and Teachers Association, Contracted Carpenters, parents and the school. The data is presented in Figure 4.7.

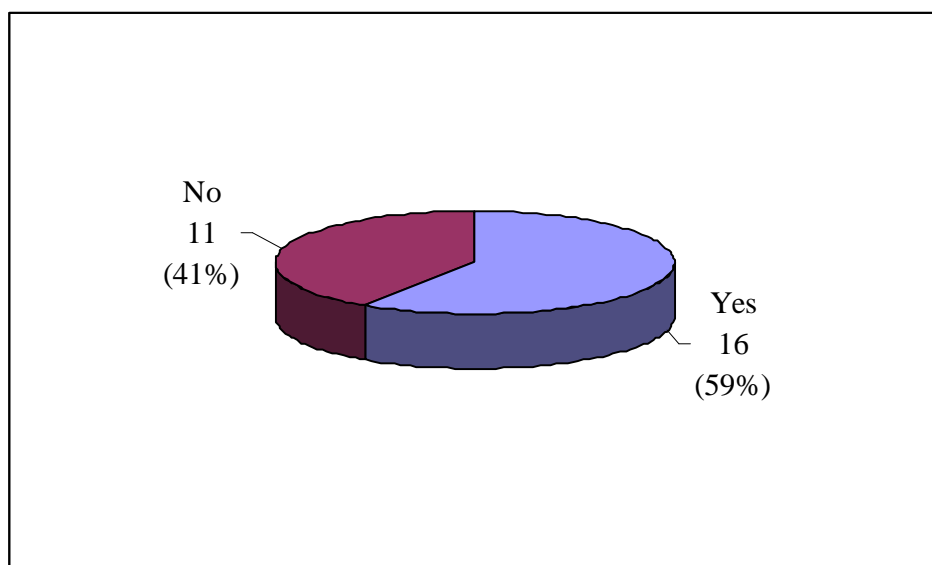


**Figure 4. 7: Head teachers responses on who repairs broken down furniture in the school**

The results in figure 4.7 show that majority of the head teachers indicated that parents 11 (40.7%) and school artisans 11 (40.7%) were the key community members involved in the repairing of broken furniture in the schools. A few of them

4 (14.8%) however indicated that the Board of management and PTA were the key partners involved in the repairing of broken infrastructure.

Having known the members involved in repairing broken furniture in the schools, the head teachers were further asked to indicate whether these furniture were being repaired on time. The data is presented in Figure 4.8.

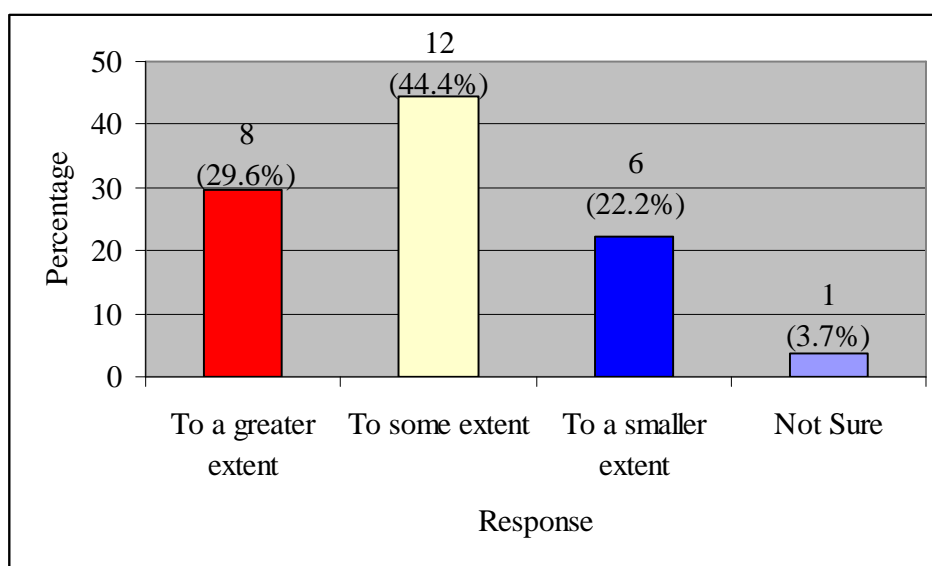


**Figure 4. 8: Distribution of head teachers response on whether the involved community members repaired the broken furniture in time**

The findings in figure 4.7 show that slightly more than half of the head teachers 16 (59%) agreed that the broken furniture was being prepared in time. However, a good percentage of them 11 (41%) indicated that the broken furniture was not being repaired in time.

### 4.5.3 Extent to which community roles have contributed towards infrastructure development

The respondents gave their responses on the extent to which community roles contributed towards infrastructure development in public primary schools in the district. Figure 4.9 presents a summary of the findings obtained.



**Figure 4. 9: Distribution of head teachers on the extent to which community roles have contributed towards infrastructure development**

The data in figure 4.9 show that a good percentage of the head teachers were positive regarding the extent to which community members contributed towards infrastructure development. 44.4% of them indicated to some extent whereas slightly more than a quarter of the head teachers 8 (29.6%) indicated that community roles contributed towards infrastructure development to a greater extent.

With regards to community involvement in infrastructure development, the PTA members had a number of responses to provide. They reported that the community members have been involved in infrastructure development through donating items such as water tanks among many others; some of the community members are less concerned and think that it is the responsibility of the MOE to do all the infrastructural development works in the schools; the community members ensure that the government has developed enough buildings in the school. This was further supported by the BoM who indicated that indeed the community members played various roles in facilitating infrastructure development in the school. They reported that community members provided labour as well as materials which aided in the infrastructure development process. However, they reported that a key challenge which affected the full participation of the community in infrastructure development was poverty.

The AEO reported that:

Poverty and misplaced priorities are major challenges affecting infrastructure development as well as resource mobilization among the community members. This affects to a greater extent the involvement of the community in supporting development in the respective schools.

DQASO officer on the other hand reported that the level of education and awareness is a critical issue which affected the involvement of various stakeholders in the

infrastructure development process in schools. Further, the officer went on ahead to report that:

Poverty levels and political interferences are the major issues which are affecting the effective involvement of local community members in infrastructural development in the respective public schools in the area.

On the other hand, the DEO reported that:

Poverty is a major issue which is hindering the full involvement of local community members in the infrastructure development. And most of the funds are used to purchase food instead of being put into infrastructure development.

In 1960s communities, parents and local authorities were principally responsible for capital investment in primary education throughout East Africa (Bogonko, 1992). The communities' contributions ranged from poles, thatch cash and labour.

Black & Scendlen (1980) also supports the findings of this study by indicating that funding primary school education infrastructure has been largely dependent on local community. Additionally, MOE (2009) comments that community contribution either in terms of financial resources depending on the economic level or in kind is required to support government and other pertinent contributions. Communities are expected to provide firewood, employ a cook, provide kitchen utensils, cooking water and monitor the utilization of the project's funds, as part of their contribution (MOE, 2009).

Moreover, the findings of this study is in-line with a survey carried out by Thinh (1991) which observed that PTAs provided for 21.2% of the cost of building 63.8% of the cost of furniture and equipment, 63.4% repairs and 87.7% of general contingencies. In Malaysia, it is the parents associations (PAs). The role of the parents associations is primarily that of material support; for example, contributing to building of school halls, canteens and adding classes. The PAs have come to play a central role in construction and maintenance of building and facilities in association with the local education councils. PAs persuade and encourage local production and trading establishments in building educational facilities. In Vietnam, most primary schools have been built by people through the PAs and the local educational councils. The association is also involved in the provision of desks, benches and in teaching aids etc (Thinh, 1991).

In further supporting the findings of this study on the involvement local community members in infrastructure development, Salomon and Anheier postulated that Christianity and particularly Protestantism permit the flourishing of the community actions because of its emphasis on individualism and its strong independence from state control. Gaduh (2012) also found that different religions had different impacts on the rise of the community action depending on the weight they assigned to charitable acts in terms of time and resources, supporting individual action, commitment to institution building and their relationship with the country.

#### 4.6 Policies and regulation on infrastructure development

Being public institutions of learning, government policies and regulations have a role that they may play in influencing infrastructure development projects. This study investigated how policies and regulations affect infrastructure development in primary schools in Kathonzweni Division. The head teachers were asked a number of questions and expected to give their responses as whether yes or no. Table 4.5 summarizes their responses.

**Table 4.5: Distribution of head teachers response on various issues regarding policies for infrastructure development**

	Yes		No	
	F	%	F	%
I am aware of the policies put in place by the government on infrastructure development in public schools	23	85.2	4	14.8
The school has a resource mobilization plan and policies which aid in infrastructure development policies	20	74.1	7	25.9
The available policies encourage the involvement of teachers in mobilizing resources for infrastructure development.	22	81.5	5	18.5
The policies put in place by the government encourage training of head teachers' involvement in infrastructural management and development.	24	88.9	3	11.1

Table 4.5 shows that majority of the head teachers (85.2%) indicated that they were aware of the policies put in place by the government on infrastructure development in public schools. A few of them (14.8%) indicated that they were not aware. In terms of resource mobilization plans, majority of the head teachers (74.1%) indicated that the school has a resource mobilization plan and policies which aid in infrastructure development policies. A quarter of them (25.9%) indicated that there were no such policies in the school.

The data in table 4.5 further showed that majority of the head teachers (81.5%) were positive by agreeing that the available policies encouraged the involvement of teachers in mobilizing resources for infrastructure development. A few of them (18.5%) however disagreed to the latter. Majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development.

The PTA members highlighted that there were a number of policies which had been put in place which governed the issue of infrastructure development in schools included the procurement policy and health and sanitation policy. However, one of the head teachers went on ahead to report that:

The procurement policy has been posing a challenge in the infrastructure development process in the school. Due to the policy, the bureaucracy is a bit tight and thus it takes a long time to procure materials which are required to facilitate infrastructure development.

In supporting the responses of the PTA, the members of the BoM were also in agreement that government policies did have an effect on infrastructure development process in public schools. They reported that the policies were not clear on the different roles that various stakeholders were supposed to play in the development process. Moreover, the policies were reported as to delay the procurement of materials which were required to facilitate the construction of infrastructure in the school.

In response to the effects of policies on infrastructure development in public primary schools, the DQASO officer reported that:

There are a number of policies which have been set aside to govern infrastructure development in schools. These policies include the safety standards policies. These policies address on how different infrastructures may be used in schools and safety maintained. Moreover, the available policies to some extent have influenced infrastructure development in schools through resource mobilization. For instance, procurement policies are very stringent and this makes the school representatives not able to afford various materials for infrastructural development.

Further, the AEO reported that:

There are policies addressing on infrastructure development in public primary schools. The government policies affect infrastructure development in that they

ensure proper use and give guidelines on how resources may be mobilized to facilitate infrastructure development in the public schools.

According to an observation made by the DEO, the main policies affecting infrastructure development in schools is the procurement policies and construction services. These policies are rigid and in most cases are bureaucratic in nature hence taking too long to process. Moreover, the policies tend to provide guidelines for proper usage of infrastructure.

In this section, the findings have shown that indeed policies do have an influence on infrastructure development. Some of the policies which have been pointed out in the study include procurement policies and health and safety policies. These policies have been pointed out as to determine how schools source for funds as well as get materials to the school to aid in infrastructure development. In supporting these findings, an article by UNESCO (2005) showed that appropriate and sufficient building, child friendly, safe environment enhance child rights. Such environments in schools can be realized through the prevalence of health and safety needs policies in schools. Moreover, the Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoE, 2005). This emphasizes the importance of complying with Education Act (Cap 211) and Public Health Act (Cap 242). The manual discusses size and number of physical infrastructure for resistance and recommends the need for sufficiency.

According to these acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users. However, one may find that the quality of such infrastructures in the respective public schools is inadequate. Moreover, the available facilities are always in poor conditions.

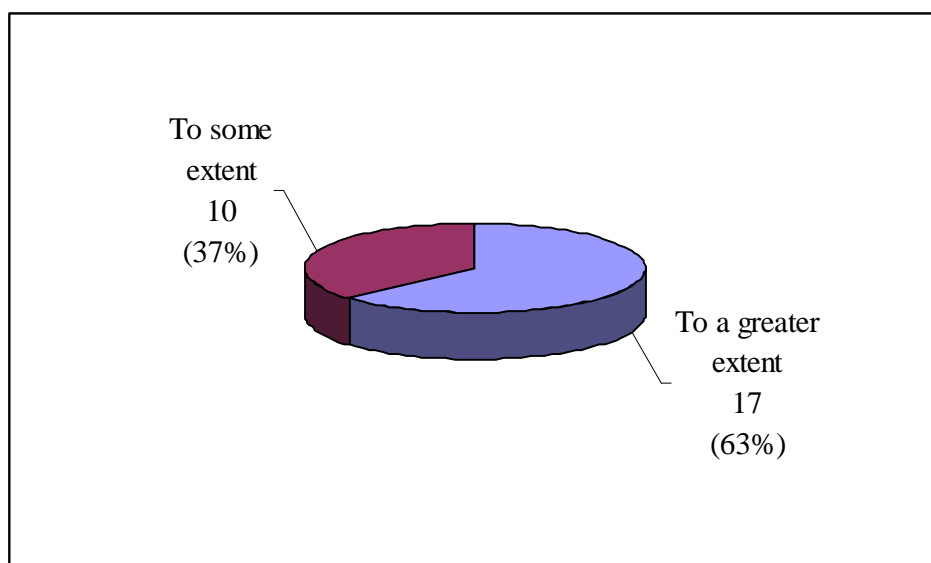
In conclusion, it may be reported that despite the prevalence of policies to aid in infrastructure development there are still issues which are hampering the effectiveness of these policies. Slowness in the procurement policies to the implementation process may raise eyebrows concerning the effectiveness of these policies. As such a recommendation can be given to address on the restructuring of policies to ensure their effectiveness in promoting infrastructure development in schools.

#### **4.7 Stakeholders' attitude and infrastructure development**

The fourth and last objective of the study was to examine how stakeholders' attitude affected infrastructure development in public primary schools. The head teachers were first asked to indicate whether they enjoyed being involved in infrastructure development in their respective schools. In this case almost all of them (96%) positively agreed that they enjoyed participating in infrastructure development process in their schools. Only one of the head teachers indicated that he did not

enjoy. Further, the head teachers were also asked to indicate the extent to which they enjoyed being involved in infrastructure development.

Figure 4.10 presents a summary of head teachers responses on the extent to which they enjoyed being involved in infrastructure development.



**Figure 4. 10: Distribution of head teachers on the extent to which they enjoy being involved in infrastructure development**

The data in figure 4.10 shows that there were those respondents who suggested that they enjoyed being involved in infrastructure development to a greater extent 17 (63%) where as others indicated to some extent 10 (37%).

Through the interview guides, the effects of stakeholders' attitude on infrastructure development were brought out clear. The PTA members for instance, indicated that attitude did have a great effect on the infrastructure development in schools. Most of them reported that some of the key stakeholders had a negative attitude and this

hindered them from being directly involved in the development process. One of the PTA members for instance reported that:

Some stakeholders have a negative attitude towards infrastructure development. Some of the members in the school tend to hold that infrastructure development is a responsibility of the government. As such, they do not contribute any resources or labour towards the development process.

Another PTA member further reported that “Some of the stakeholders have a negative attitude towards infrastructure development. They say that primary education is free hence they do not want to give money for buildings.” In summary, negative attitude among stakeholders led to inadequate involvement in infrastructure development, minimal provision of finances for infrastructure development and poor management of the already available infrastructure in the school.

In response to how stakeholders’ attitude affected infrastructure development, the AEO reported that:

The attitude of the stakeholders plays a major role in that they influence infrastructure development in the schools. In this case, many of the community members are of the perception that public school development is only for the government so they do not want to participate.

In further supporting the above statement by the AEO, the DQASO officer also reported that: “The attitude of the stakeholders affects their involvement in

infrastructural development differently. Positive attitude towards infrastructural development rises when there is full involvement of the members in the infrastructure development process.” On the other hand, the DEO reported that “most of the stakeholders have positive attitude however, financial problems at times makes them to develop coldness towards being involved in infrastructure development.”

Attitude has been found in this study as a major challenge on the involvement of stakeholders in infrastructure development. Most of the stakeholders are of the idea that development is for the government and thus they are not necessarily to be involved. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. The study found that attitude determined the extent to which members were motivated to use infrastructure as well as maintain it. Another study carried out by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary, conclusion and recommendations for this study.

#### **5.2 Summary of the study**

The main purpose of this study was to investigate the factors affecting infrastructure development in primary schools in Kathonzwani Division, Makueni County. The study was guided by the following research objectives: To establish how adequacy of funds affect infrastructure development in primary schools in Kathonzwani Division, to determine how community involvement influence infrastructure development in primary schools in Kathonzwani Division, to examine the effects of policies and regulations on infrastructure development in primary schools in Kathonzwani Division and to examine how attitude affects infrastructure development in primary schools in Kathonzwani Division.

A descriptive survey research design was used in this study. This design was used because it enables investigation into the subject under study. The sample for this study consisted of all the head teachers (27), Board of Management (27) and PTA Chairpersons (27), DEO (1), DQASO (1) and AEO (1). In total, the sample size for this study was eighty four (84). The head teachers, BoM and PTA chair persons were arrived at through census sampling method whereas the DEO, DQASO and AEO

were purposively selected to participate in the study. The data collection instruments used in the study included questionnaires for Head Teachers and interview guide for the B.O.M. and P.T.A chairpersons, AEO, DQASO and DEO and observation checklist.

The collected data was analyzed using descriptive statistics, employing both quantitative and qualitative approach. Data from questionnaires were purely analyzed quantitatively and presented in frequencies and percentages while data from interview guide was analyzed qualitatively. The study used SPSS (Statistical Package for Social Sciences) to aid in data analysis process. From the analysis, the following findings were made:

There are those schools in the district which have infrastructures that are in a poor state. One of the leading infrastructures that are in poor conditions in the schools is the kitchen, followed by toilets, water points/tanks and school furniture respectively. The key methods used to raise money for infrastructure development in schools include parents' contribution, government allocation and CDF funds.

For classroom infrastructure, majority of the head teachers (66.7%) indicated that the funds came from the fees, CDF funds and donors. Major sources of funds for school furniture include parents' contributions (66.7%). Parents' contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in

schools. An overwhelming majority of the head teachers (93%) indicated that the funds provided for infrastructure development were not adequate.

The PTA, BoM members and AEO, DQASO and DEO reported that the key sources of funds for infrastructure development include parents, CDF funds, government allocations and MoEST. Role of community members in infrastructure development include providing labour materials, repairing and maintenance, provision of finances and monitoring projects. Poverty, level of education and awareness and misplaced priorities affected the involvement of community members in infrastructure development.

Majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development. Majority of the head teachers (85.2%) indicated that they were aware of the policies put in place by the government on infrastructure development in public schools.

Attitude affects the extent to which stakeholders are involved in the infrastructural development. Most of the stakeholders such as parents have a negative attitude towards involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not them.

### **5.3 Conclusion**

From the analysis and summary of the study, there are a number of conclusions which can be made. First and foremost, it may be concluded that the quality of infrastructure among quite a number of public primary schools in Kathonzweni division is in poor state. This puts a reason for recommendations to be put in place to address the deteriorating conditions of infrastructure in the schools.

In terms of funds, it is concluded that the major sources of funds for infrastructure development in schools include parents, CDF funds, government allocations and donors. However, these funds are not adequate and thus schools are not in a position to meet the full cost of developing infrastructure in the schools. Thus, it may be concluded that inadequacy of funds affect infrastructure development in public primary schools in Kathonzweni division to a greater extent.

Policies and regulations have also been noted as a factor that affects infrastructure development in schools. Tight policies such as those for procurement have been noted as to delay the process of obtaining materials to be involved in the infrastructure development process. Moreover, the policies do not show different roles that different stakeholders should play in the development of infrastructure in schools. As such, it is concluded that policies and regulations affect infrastructure development in schools to a greater extent.

The involvement of the community members is critical to the success of infrastructure development in schools. However, there are a number of issues which arise that affect their involvement in the infrastructure development process. Poverty and political interferences affect the way community members participate in infrastructure development. However, the roles they play include providing finances, labour and materials and carrying out repair services.

The attitude can be concluded a determinant that affects stakeholders' involvement in the infrastructure development process. For instance, most of them hold the idea that FPE is free hence it remains the responsibility of the government to take care of the infrastructure in schools. Moreover, due to negative attitude some parents do not want to contribute finances or labor to support the development of infrastructure. This affects infrastructure development in the school to a greater extent.

#### **5.4 Recommendations**

That the Ministry of Education should start negotiations with County governments to pursue the possibility of counties getting more actively involved in funding school infrastructure projects. This will be a big boost to upgrading the dilapidated structures in many schools as noted in the case of public primary schools in Kathonzweni division. This will also ease pressure on FPE fund which can then be channeled by the head teachers towards improving learning through the purchase of teaching and learning essentials in the classroom. Infrastructure is currently

competing with for scarce resources with other learning requirements hence the financial constraint is piling pressure on head teachers.

The MoEST should use the local education officers to carry out awareness sessions with parents and key stakeholders to sensitize them on way that they can support their schools by developing the required infrastructure through provision of all possible resources including giving in kind. There is need for more stakeholders to be involved in the infrastructure development process in schools. This will help to ensure full community involvement in school infrastructure development.

MoEST should strengthen the training for head teachers on resource mobilization for infrastructure development build their capacity on infrastructure development and management in the schools. These trainings may be carried out in the course of holidays or within the school periods so as to provide an ample time for head teachers to exercise what they learn.

It is also recommended that as far as possible, there is need for more money to be allocated by the government to support infrastructure development in public primary school. This is because from the head teachers' responses on adequacy of funds, it was clear the funds currently allocated by the government are not sufficient for developing school infrastructure. There is also need for the government to create time to facilitate the revision of the policies so as to provide clear guidelines in infrastructure development as well as avoiding the delays which are experienced in the procurement process of materials for infrastructure development.

The school head teachers have a role that they need to play in mobilizing the community members and parents on the importance of their involvement in the infrastructure development process. Through general meetings in the schools, the head teachers can inform the parents how their involvement in the school creates a lot of opportunities in facilitating infrastructure development processes.

The school head teachers and the chairpersons of both the PTA and BoG need to put their heads together and strategize on the mechanisms that they may employ in mobilizing resources for infrastructure development in schools. This may be done through harambee, fundraising functions, developing of infrastructural funding proposals among many others.

The community members have a sole responsibility that they need to play in promoting infrastructure development in schools. As such, they need to be encouraged and motivated by being informed through open air campaigns that their support and involvement in the construction of infrastructure in schools is highly recognized and appreciated. More avenues need to be created which directly involves the participation of community members in the development of physical infrastructure in the schools.

#### **5.5. Suggestions for further research**

1. This study focused on factors influencing infrastructure development in public primary schools, but did not look at parents' occupation or economic

activities and levels of education. A study can be done on the influence of parents' occupation /economic activities and their levels of education on school infrastructure development.

2. This study was limited to Kathonzweni Division in Makueni County. Other studies on factors influencing school infrastructure development should be done in other parts of Kenya to look at other factors and compare the findings.

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## **APPENDICES**

### **APPENDIX I**

#### **LETTER OF INTRODUCTION**

Josiah M. Ojwang  
University of Nairobi  
Department of Educational Administration and Planning  
P.O. Box 30197 NAIROBI

The Head teacher,

Dear Sir/Madam,

#### **RE: PARTICIPATION IN RESEARCH**

I am a post graduate student at the University of Nairobi pursuing a master's degree in Education. I am conducting a research on the topic "**Factors influencing infrastructure development in public primary schools in Kathonzweni division, Kenya.**"

This study is going to benefit the principals and teachers to understand the relevance of infrastructural development and the key approaches to resource mobilization in public primary schools.

I hereby request you to assist me with necessary information to help me obtain accurate findings. Kindly allow me to carry out this research in your school.

Thank you.

Yours faithfully,

Josiah M. Ojwang.

## APPENDIX II

### QUESTIONNAIRE FOR HEAD TEACHERS

Please read the questions below and kindly give the appropriate response by ticking (✓) or writing in the spaces provided .Please note that this information is purely for academic purpose and your identity will be held in utmost confidentiality.

#### Section A: Personal Information

1. Name of school: .....

2. What is your highest academic level?

- |            |     |                          |     |
|------------|-----|--------------------------|-----|
| a) P1      | ( ) | d) Degree                | ( ) |
| b) ATS     | ( ) | e) Master's Degree       | ( ) |
| c) Diploma | ( ) | f) Other (specify) ..... |     |

3. How many years have you been a head teacher in this school?

- |                  |     |                   |     |
|------------------|-----|-------------------|-----|
| a) Below 2 years | ( ) | c) 5-10 years     | ( ) |
| b) 2-5 years     | ( ) | d) Above 10 years | ( ) |

4. What is the number of pupils attending the school? .....

6. What is the status of the infrastructure in your school?

Physical Infrastructure	Are they Comfortable	Number	Status (very good, good, bad, very bad, n/a)
Classrooms			
Furniture			

Toilets			
Kitchen			
Water Point / Tank			
Other (specify):			

- a) When your furniture break down who repairs them? .....
- b) Are they repaired in time? .....
- c) Do the pupils seem overcrowded in class? .....
- d) Do you face any problems with your toilets? .....
- If yes list them: .....

**Section B: Availability of Funds for Infrastructure Development**

7. Where have your sourced funds to put up the following infrastructure?

<b>Physical Infrastructure</b>	<b>Source [CDF, LATF, KESSP, fees, donors, etc.]</b>	<b>% funded</b>
Classrooms		
Furniture		
Toilets		
Kitchen		
Water Point / Tank		
Other (specify):		

8. Do these provide sufficient funds for physical infrastructure development?

---

9. To what extent does the availability of funds influence resource mobilization for infrastructure development in your school?

- a) To a greater extent [ ]                      c) Not at all [ ]  
b) To some extent [ ]                              d) Not sure [ ]

**Section C: Role of Community in Infrastructure development**

10. What are some of the roles that the community plays in infrastructure development in your school?

---

11. To what extent has the community members in your area contributed towards the development of infrastructure in your school?

---

**Section D: Policies and Regulation on Infrastructure development**

12. Tick all the methods that you use to raise money to develop school infrastructure.

- (a) Government allocation    (b) CDF funds                      (c) Religious organizations  
(d) School Fees                      (e) Parents contribution                      (f) Other (specify)\_\_\_\_\_

13. Are there any policies which you are aware of that aid in infrastructure development in your school? \_\_\_\_\_

14. Does the school have a Resource Mobilization Plan or policies for infrastructural development? \_\_\_\_\_

15. Do the available policies encourage the involvement of teachers in choosing or suggesting what methods can be used to mobilize funds for school infrastructure development? \_\_\_\_\_



**APPENDIX III**

**INTERVIEW GUIDE FOR PTA AND BOM CHAIRPERSONS**

1. Date \_\_\_\_\_
2. Center \_\_\_\_\_  
Position PTA official ( ) BOM official ( )
3. What is the role of the body you officiate with regards to infrastructure development? \_\_\_\_\_
4. Does the school have a resource mobilization plan?  
\_\_\_\_\_
5. How does the school source funds for infrastructure development?  
\_\_\_\_\_
6. What are the main sources of funds for infrastructure development in the school?  
\_\_\_\_\_
7. What are the community concerns about the school's infrastructure?  
\_\_\_\_\_
8. Are there any government policies which influence or promote resource mobilization for infrastructure development in public primary schools? Yes/ No. explain \_\_\_\_\_
9. How does stakeholders' attitude affect the infrastructure development in schools?  
\_\_\_\_\_
10. In your view, what can be done to improve resource mobilization for infrastructure development?  
\_\_\_\_\_

*Thank you*

## APPENDIX IV

### INTERVIEW GUIDE FOR DEO, DQASO AND AEO

These interviews will be conducted by the researcher and will target the DEO, DQASO and AEO in charge of the division to get their views on resource mobilization for school infrastructure development.

1. What are the main sources of funding for infrastructure development in public primary schools in Kathonzwani district?
- 

2. What factors make the sources mentioned above prevalent choose as the main ways of raising money for funding school infrastructure?
- 

3. Do you organize/prepare training sessions for primary school head teachers on management/resource mobilization?

4. Are there any policies addressing on infrastructure development in public primary schools? Yes/ No. if yes, indicate these policies.
- 

5. How do governmental policies affect resource mobilization for infrastructure development in public primary schools?
-

6. In your experience, what are the challenges faced by head teachers in  
Kathonzwi as they raise funds to develop school infrastructure

---

7. How does stakeholders' attitude affect the infrastructure development in schools?

---

8. Please comment on any other alternative approaches or sources that can be used by head  
teachers to mobilize funds for developing school infrastructure in Kathonzwi

---

*Thank you*

## APPENDIX V

### OBSERVATION CHECK LIST

<b>Physical Infrastructure</b>	<b>Number</b>	<b>Status (very good, good, bad, very bad, not available)</b>	<b>Adequacy(Adequate , not adequate, not available)</b>
Classrooms			
Play grounds			
Students desks			
Teachers' tables			
Teachers' chairs			
Blackboards			
Toilets			
Kitchen			
Water Point / Tank			
Other (specify):			

## APPENDIX VI

### RESEARCH AUTHORITY LETTER

#### MINISTRY OF EDUCATION SCIENCE AND TECHNOLOGY

Office of the Sub-County Director of Education, Kathonzwani Sub-County

#### State Department of Education

Telegrams: "Kathoedu"  
Telephone:  
E-mail: deokathonzwani@gmail.com  
When replying please quote



SUB COUNTY EDUCATION OFFICE,  
KATHONZWANI SUB COUNTY,  
P.O. BOX 103-90302  
**KATHONZWANI.**

19<sup>th</sup> June, 2015

**REF: ED/KZN/ED 5/22 VOL I/20**

TO  
ALL HEADTEACHERS – PRIMARY SCHOOLS  
KATHONZWANI DIVISION  
**KATHONZWANI SUB COUNTY**

#### **RE: RESEARCH AUTHORITY – JOSIAH M. OJWANG**

The above mentioned is a registered Post graduate student at the University Of Nairobi- Kenya. He intends to undertake a research on ***Factors influencing infrastructure development in public primary schools in Kathonzwani division, Kathonzwani sub county in Makueni county, Kenya.***

Kindly accord him all necessary support he requires.

Yours faithfully,

ASSISTANT DIRECTOR OF EDUCATION  
KATHONZWANI SUB-COUNTY  
P. O. Box 103-90302  
KATHONZWANI



SIMON NGUMBI  
FOR: SUB COUNTY DIRECTOR OF EDUCATION  
**KATHONZWANI SUB COUNTY**

ISO 9001:2008 CERTIFIED



## APPENDIX VII

### LETTER OF INTRODUCTION



UNIVERSITY OF NAIROBI  
COLLEGE OF EDUCATION AND EXTERNAL STUDIES  
SCHOOL OF EDUCATION  
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING

Telegram: "CEES"  
Telephone: 020-2701902  
dept-edadmin@uonbi.ac.ke

P.O. BOX 30197 NAIROBI  
OR P.O. BOX 92  
KIKUYU

16<sup>th</sup> June, 2015

Our Ref: UON/CEES/SOE/A&P/1/4

#### TO WHOM IT MAY CONCERN

Dear Sir/Madam

SUBJECT: OJWANG JOSIAH MESHACK - REG NO. E55/75331/2012

This is to certify that **Ojwang Josiah Meshack** is our Master of Education student in the Department of Educational Administration and Planning at the University of Nairobi. He has successfully completed his course work and is summarizing his research on "*Factors Influencing Infrastructure Development in Public Primary Schools in Kathonzwani Division, Makeni County, Kenya*".

Any assistance accorded to him will be highly appreciated.

Yours faithfully,

**DR. GRACE NYAGAH**  
CHAIRMAN  
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING



GN/nd

## APPENDIX VIII

### AUTHORIZATION LETTER



#### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 310571, 2219420  
Fax: +254-20-318245, 318249  
Email: secretary@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref: No.

Date:

**2<sup>nd</sup> July, 2015**

**NACOSTI/P/15/5833/6787**

Josiah Meshack Ojwang  
University of Nairobi  
P.O. Box 30197-00100  
**NAIROBI.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Factors influencing infrastructure development in public primary schools in Kathonzweni Division, Makueni County, Kenya*," I am pleased to inform you that you have been authorized to undertake research in **Makueni County** for a period ending **31<sup>st</sup> July, 2015**.

You are advised to report to **the County Commissioner and the County Director of Education, Makueni 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.

  
**SAID HUSSEIN**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Makueni County.

The County Director of Education  
Makueni County.



## APPENDIX IX


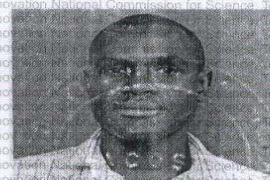
### RESEARCH CLEARANCE PERMIT

**THIS IS TO CERTIFY THAT:**  
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**research in Makueni County**  
**on the topic: FACTORS INFLUENCING**  
**INFRASTRUCTURE DEVELOPMENT IN**  
**PUBLIC PRIMARY SCHOOLS IN**  
**KATHONZWEZI DIVISION, MAKUENI**  
**COUNTY, KENYA**  
**for the period ending:**  
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- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.**

**Serial No. A 5636**

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**FACTORS INFLUENCING INFRASTRUCTURE DEVELOPMENT IN  
PUBLIC PRIMARY SCHOOLS IN KATHONZWENI DIVISION, MAKUENI  
COUNTY, KENYA**

**Ojwang Josiah Meshack**

**A Project Report Submitted in Partial Fulfillment of the Requirements for the  
Degree of Master of Education in Educational Administration**

**University of Nairobi**

**2015**

## **DECLARATION**

This project report is my original work and has not been submitted for the award of a degree in any other university.

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Ojwang Josiah Meshack

E55/75331/2012

This project report has been submitted for examination with our approval as University Supervisors

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Dr. Ursulla A. Okoth

Senior Lecturer

Department of Educational Administration and Planning

University of Nairobi

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Prof. Genevieve Wanjala

Department of Educational Administration and Planning

University of Nairobi

## **DEDICATION**

This work is dedicated to my wife Edna Ojwang and my children Liz Ojwang, Dorraine Ojwang and Blessing Ojwang.

## **ACKNOWLEDGMENT**

I very humbly give gratitude to my creator, the Almighty God for giving me life, intellect, resources and ability to carry out this project. I also give special thanks to my supervisors, Dr. Ursulla Okoth and Prof. Genevieve Wanjala for their support, patience and intellectual input which have been instrumental in making this work see the light of day. I also thank all the lecturers in the Department of Educational Administration and Planning of the University of Nairobi for their diligence in leading us through this course.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AEO</b>	Area Education Officer
<b>ASAL</b>	Arid and Semi-Arid Lands
<b>BOM</b>	Board of Management
<b>DEO</b>	District Education Officer
<b>DQASO</b>	District Quality Assurance and Standards Officer
<b>EFA</b>	Education for All
<b>KESSP</b>	Kenya Education Sector Support Programme
<b>MDG</b>	Millennium Development Goal
<b>MOE</b>	Ministry of Education
<b>MoEST</b>	Ministry of Education, Science and Technology
<b>MTP</b>	Medium-Term Plan
<b>NGO</b>	Non – Governmental Organization
<b>PA</b>	Parents’ Association
<b>PEDP</b>	Primary Education Development Plan
<b>PPS</b>	Presidential Press Service
<b>PTA</b>	Parents’ Teachers Association
<b>SMC</b>	School Management Committee
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNICEF</b>	United Nations Children's Fund
<b>UPE</b>	Universal Primary Education

## **ABSTRACT**

The main purpose of this study was to investigate the factors influencing infrastructure development in primary schools in Kathonzwani Division, Makueni County. The study further examined how adequacy of funds, community, policies and regulations and stakeholder attitude affected infrastructure development in primary schools in Kathonzwani Division. A descriptive survey research design was used in this study. The sample consisted of 27 head teachers, 27 Board of Management and 27 PTA Chairpersons, DEO (1), DQASO (1) and AEO (1). In total, the sample size was eighty four (84). Both census and purposive sampling procedures were used to arrive at the sample of respondents. Instruments used included questionnaires for Head Teachers and interview guide for the B.O.M. and P.T.A chairpersons, AEO, DQASO and DEO and observation checklist. Data was analyzed using descriptive statistics, employing both quantitative (questionnaires) and qualitative (interview guide) approach. From the analysis, the following findings were made: The methods used to raise money for infrastructure development in schools include parents' contribution, government allocation and CDF funds. The role of community members in infrastructure development include providing labor materials, repairing and maintenance, provision of finances and monitoring projects. However, these roles are affected by poverty, level of education and awareness and misplaced priorities. Tight policies such as those for procurement have been noted as to delay the process of obtaining materials to be involved in the infrastructure development process. Moreover, the policies do not show different roles that different stakeholders should play in the development of infrastructure in schools. Most of the stakeholders have a negative attitude towards involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not them. The following recommendations are given: Clear roles of community, government and other partners to be developed by the MoE, more stakeholders to be involved in the infrastructure development process in schools, awareness creation to be made on the need for full community involvement in infrastructure development. There is need for more money to be allocated by the government to support infrastructure development. There is also need for policy issues to be revised so as to guide clear guidelines in infrastructure development as well as avoiding the delays which are experienced in the procurement process of materials for infrastructure development.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the study**

Globally, educating citizens is a key responsibility of the government and a main factor in development. Indeed education is seen as the principal institutional mechanism for the development of human capital (Nsubuga, 2003). Education is actually an investment for a country; hence there is a positive correlation between education and economic development (Rhodes & Bell, 2004). The United Nations Declaration on Human Rights (1948) recognizes education as a human right and points out that it shall be free. This is further buttressed by the world conferences on Education for All (EFA) in Jomtien (1990) and Dakar (2000) which emphasized the principles that every child has a right to education. The millennium development goals (MDGs) lay considerable emphasis on education in terms of achieving Universal Primary Education (UPE). Since all have a right to education, the issue of access has necessitated expansion of existing schools and putting up new physical facilities in schools. Setting up learning structures is therefore a matter of priority to government's world over.

In South Africa, while some schools have excellent infrastructure, others lack basic services like water and sanitation. It is noted that schools in what were formerly black areas in the apartheid period generally suffer poor infrastructure and there is

backlog of physical school development (Gibberd, 2007). Gibberd (2007) further denotes that South Africa is struggling with prioritizing which schools should be given more emphasis in terms of allocating resources to ensure that the overall performance of school infrastructure is improved.

Another country in Africa which has been on the map concerning the infrastructure development issues in schools is Nigeria. The capacities of schools in Nigeria are not in a position to fully handle the ever increasing enrollment of learners. Issues such as inadequacy of funding, infrastructure and lack of manpower or community involvement have been raised as to affect the quality of education in the schools (Solutions 4 Africa, 2015). Moreover, various researchers (Olagunju, 2011; Zubairu, 2010; Isyaku, 2003) have also pointed that lack of proper maintenance due to insufficient policies have contributed to the prevalence of poor infrastructure in most of the secondary schools in Nigeria. To address the issue of infrastructure in schools, the government has tried to come up with some policies or initiatives to encourage infrastructural development so as to enhance the overall education process in schools.

The issue of infrastructure among schools is also evident across various countries in East Africa. Countries such as Tanzania, Uganda, Burundi and Rwanda have been highlighted by various researchers concerning the crumbling conditions of infrastructure in schools. This has also been attributed as to influence the incorporation of various developmental programs and curriculums in the school

inclusive of ICT (World Bank, 2007). Lack of investments or funds, attitude, policy related issues among many others have been raised as to contribute to the crumbling conditions of infrastructure in the schools.

In Kenya, the state of infrastructure in many schools still remains wanting. It may be observed that the state of school infrastructure in Kenya is not anywhere near adequate as thousands of pupils learn in dilapidated classrooms or no classrooms at all and schools lack basic facilities like toilets (Daily Nation, 19 March 2014). Indeed even before Free Primary Education (FPE) was introduced, schools barely had enough infrastructure. With the advent of FPE, the available school facilities simply became overstretched since the issue of infrastructure was glossed over as more children trooped to schools. Children began to learn under trees and in makeshift classrooms, whereas sanitary facilities such as toilets and water supply became overstretched. For instance, The United Nations Children's Fund (UNICEF) (2010) found that on average, 38 male pupils share a toilet and 32 female share a toilet in Kenya's public primary schools. This does not meet even the government's own recommendation of one toilet for 25 girls and one for 30 boys.

Kenya's development blueprint, Vision 2030, also recognizes the need for proper priority towards school physical infrastructure. In its medium-term plan (MTP) for 2008-2010, education was identified as one of the eight sectors that would contribute to the national development under vision 2030. One of the identified flagship programmes was attainment of education for all by 2015. MTP emphasized that the

government would develop an infrastructure programme to rehabilitate schools (Vision, 2030). Apart from these, there is need for accountability to make the infrastructure funding effective. In January, 2010, the Presidential Press Service (PPS) reported that the then president of Kenya, Mwai Kibaki asked parents to demand accountability for the funds given or distributed to schools. The president noted that the funds were meant for development of local schools and creation of an environment conducive for learning.

School infrastructure to a large extent is instrumental in achievement of education goals. Classrooms, offices, teachers room/staff room, play fields and toilets are all basic requirements essential for the smooth functioning of the school. Head teachers and School Management Committees (SMC) are tasked with developing and maintaining infrastructure in their schools. Raising funds for infrastructure development is therefore a key management function of the school head teacher. The head teacher has a duty to ensure that school infrastructure facilities are available and kept in tidy state since this is an important part of the provision of education (Mbiti, 2007).

Public primary schools in Kathonzi division, just like in other parts of Kenya, are expected to have the entire recommended infrastructure to facilitate proper learning and for the comfort of pupils and teachers. While it is the desire of the head teachers to ensure that their schools are adequately equipped, many schools are inadequately equipped in terms of infrastructure development. There are children learning in

crowded classrooms, classrooms in many schools are dilapidated and poorly maintained and some of the structures are improvised for use as classrooms, offices or toilets.

The Kathonzweni District Education Officer Report (2012) captured the wanting state of infrastructure in the district and narrowed down to the ability of head teachers to raise funds for school infrastructure. The report indicates that many head teachers had tried to mobilize school funds for infrastructure development but complained of many difficulties such as competition for the available donors, priority to food and learning materials such as books, lack of cooperation from parents or even Boards of Management. The DEO report also explains that head teachers also complained that some parents and community members were unwilling to contribute to school infrastructure because they understand that primary education is free, thus they do not need to pay anything in school.

Infrastructural issues have also been associated poor quality of education being provided in the public primary schools. Parents and teachers among many other stakeholders have been trying to come up with strategies to improve the quality of education provided in the public schools. Some have been in the forefront in coming up with approaches targeted towards improving the school conditions and especially the quality of infrastructure. A question that however remains among many individuals and researchers is how can resources be mobilized in schools for infrastructural development practices? And if there are resource mobilization

practices, what then are the factors affecting infrastructural development in primary schools? All these questions form a key component of this study. As such, the researcher examined the factors which influenced infrastructure development. Some of the variables which the study examined include the role of the community, availability of funds as well as policies.

## **1.2 Statement of the problem**

Physical infrastructure in public primary schools in Kathonzwani division has been in a bad state. One may observe that there are inadequate facilities such as classrooms, sanitation facilities and poor kitchen conditions among many others. Moreover, the playgrounds in most of the schools are in a poor state and thus pose a challenge to the security of the children while in the playground. The capacity of school facilities cannot sustain the increased enrollment of the pupils which has largely been influenced by the introduction of Free Primary Education (FPE). Head teachers in the area have been trying their level best in promoting infrastructure development to schools but all this has been in vain. As such, this has raised question among various stakeholders in the educational sector on what exactly are the challenges which are affecting infrastructure development in public primary schools. This question formed the general objective and purpose of this study.

On the other hand, there are a number of studies (Gaduh, 2012; Ayogu, 2007; MOE, 2005; Crampton and Thompson, 2003) which have been carried out with respect to resource mobilization and infrastructure development. For instance, the study by

Ministry of Education (MoE) (2005) emphasized on planning, accountability for resource use and community participation through empowerment in resource mobilization. However, most of these studies have had their own limitations which vary from geographical coverage to the methodological approaches. This study on the other hand, investigated factors affecting infrastructure development in primary schools in Kenya. Hence, there was need for this study to be carried out to investigate the factors affecting infrastructure development in primary schools in Kathonzwani Division, Makueni County, Kenya.

### **1.3 Purpose of the study**

The purpose of this study was to investigate the factors affecting infrastructure development in primary schools in Kathonzwani Division, Makueni County.

### **1.4 Research objectives**

This study was guided by the following research objectives:

- i. To establish the extent to which adequacy of funds influence infrastructure development in primary schools in Kathonzwani Division
- ii. To assess the extent to which policies and regulations influence infrastructure development in primary schools in Kathonzwani Division.
- iii. To determine how community involvement influence infrastructure development in primary schools in Kathonzwani Division.
- iv. To examine how parent attitude influence infrastructure development in primary schools in Kathonzwani Division.

### **1.5 Research questions**

The following research questions were used to guide the study:

- i. How does the adequacy of funds affect infrastructure development in primary schools in Kathonzwani Division?
- ii. What are the effects of policies and regulations on infrastructure development in primary schools in Kathonzwani Division?
- iii. How does the community involvement affect infrastructure development in public primary schools in Kathonzwani Division?
- iv. How does parent attitude influence infrastructure development in primary schools in Kathonzwani Division?

### **1.6 Significance of the study**

This study is hoped to be of significance to various stakeholders in the educational sector. These stakeholders include pupils, head teachers, parents, the government, community members and policy makers. Pupils are hoped to be the key beneficiaries of this study. Through the recommendations, they will be able to have a good and conducive learning environment that comprises of well furnished and safe infrastructure to use. Moreover, they will also be reinforced on the roles that they can play to facilitate the maintenance of the available infrastructure in the school.

The head teachers, PTA and BOG members are also expected to benefit from the findings and recommendations of this study. They will first be enlightened on the various factors such as adequacy of funds, policies and regulations, community

involvement and parents' attitude affect infrastructure development in the school. Moreover, through the recommendations, they will be provided with techniques that they may use to overcome these challenges and thus facilitate effective infrastructure development in the school. The community members will also benefit from this study. They will be in a position to learn how their involvement affects the development of infrastructure in schools. Hence, they will be encouraged to put more efforts in supporting head teachers, teachers, parents and the government in general in facilitating infrastructure development in schools.

The government through the Ministry of Education Science and Technology (MoEST) are also hoped to benefit from this study. Establishing the major challenges facing infrastructure development, MoEST is expected to support the head teachers to improve the quality and quantity of infrastructure in schools and thereby improving the learning environment. Through this study, the assessment results can be guideposts that would help policy makers to restructure the current policies as well as develop new policies which may help in supporting infrastructure development in schools. Moreover, the policies can also be restructured so as to create an easy flow in the procurement processes of materials required for infrastructure development in the schools.

This study is also expected to contribute to general knowledge on the areas of infrastructure development in schools in the third world countries. The research will provide adequate, relevant and more current information on how community

involvement, policies and regulations, parents' attitude affect infrastructure development in public schools in Kenya.

### **1.7 Limitations of the study**

According to Kombo (2006), limitations refer to the hurdles a researcher anticipates over which they have no control. Kathonziwani Division has schools which are far apart and many are not served by any form of public transport due to the poor state of the roads. In some cases, reaching school may require hiring of motorcycle transport and it may therefore take long to reach many schools quickly. This was tackled by planning well and arranging for advance transport as may be necessary. Another limitation of this study is that it was only carried out in one district. Thus the information obtained may differ from other districts in the country.

### **1.8 Delimitations of the study**

Delimitations are the boundaries of the study in terms of geographical coverage (Oso and Onen, 2009). The study was conducted in public primary schools in Kathonziwani Division, Makueni County, Kenya. The respondents were head teachers from the public secondary schools in Kathonziwani Division, BOM and PTA chairpersons, AEO, DQASO and DEO officials. Head teachers from private schools in the division did not form part of the respondents because their management policies differ from one school to another and their funding methods are also not similar to those of public schools.

## **1.9 Basic assumptions of the study**

The study was carried on the assumption that:

- i) Head teachers were capable of identifying their roles in infrastructure development including pointing out challenges and expressing their opinions on alternative approaches of raising funds.
- ii) Respondents would be willing to participate in the study and engage in giving honest responses to the questions that the researcher seeks to answer.

## **1.10 Definition of key terms**

**Adequacy of funds** refers to the availability of financial resources required by public primary schools for infrastructure development.

**Community involvement** refers to the extent to which the members of the society willingly engage in infrastructure development processes in public primary schools.

**Challenge** refers to any difficulty experienced by head teachers as they raise funds for developing school infrastructure

**Influence** refers to what prompts the head teacher to seek funds mobilization for infrastructure development in their schools

**Infrastructure** refers to the physical facilities in the school such as classrooms, teachers' houses, staffroom, offices, water systems, kitchen and toilets.

**Parents' attitude** refers to parents' perception of their responsibilities towards infrastructure development in public primary schools.

**Policies and regulations** refer to the mechanisms and principles put in place to aid in the infrastructural development processes in public primary schools.

**Public primary school** refers to a school that is maintained at public expense for the education of the children of a community or district and that constitutes a part of a system of free public education offered by the Government of Kenya, and guided by the national curriculum in offering instruction to pupils.

**Resource** refers to a source of supply, support, or aid, especially one that can be readily drawn upon when needed.

### **1.11 Organization of the study**

The study was organized into five chapters. Chapter one covered the background to the study, statement of the problem, purpose of the study, limitations of the study, delimitations of the study, objectives of the study, research questions, significance of the study, some assumptions of the study, definition of significant terms and organization of the study. Chapter two was concerned with literature review. It contained infrastructure development in schools, influence of funds on infrastructure development, influence of government policies on infrastructure development, community's involvement in infrastructure development, parents' attitude and infrastructure development, summary of literature review, theoretical framework, conceptual framework and. Chapter three discussed the methodology of this study. This presented the research design, the target population, sample size, sampling procedures, research instruments, validity of the instruments, data collection procedures, data analysis techniques and ethical considerations. Chapter four presented the analysis presentation and discussion. Chapter five covered the summary, conclusions and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents the related literature reviewed on the factors influencing resource mobilization for infrastructure development. The literature reviewed is obtained from online articles, books and journals among many others. The chapter is presented based on the research objectives.

#### **2.2 Infrastructure development in schools**

Infrastructure development continues to be an issue raised by various stakeholders not only in the economic sector any given country but also in the educational systems. With the increased enrollment, school administrations find it a challenge to provide enough facilities to cater for the educational needs of the pupils. It may be observed that in sub-Saharan Africa (inclusive of Kenya) and the poorest countries in Asia, the challenge of providing adequate primary education facilities is huge. To meet the Education for All target of providing universal access to primary education worldwide it has been estimated that up to 10 million classrooms need to be built at a cost of US\$72 billion (World Bank, 2003).

In sub-Saharan Africa alone it is estimated that up to US\$30 billion will be required to address the shortfall in provision of suitable and safe learning environments. Typically, classrooms are overcrowded, many buildings and other facilities are

inadequate, sites are poorly planned and there is little maintenance. This situation is not conducive to good teaching and learning (Bonner, Kalra, Leathes, Das & Wakeham, 2010). According to these observations, it is paramount for Kenyan government among various other stakeholders to put more efforts in ensuring that not only policies are designed to promote infrastructure development, but the who society and community at large are reinforced and motivated to take part in the infrastructure development process in schools.

Where there are limited resources it is important that they are they targeted efficiently and equitably. This is often not the case and facilities are not constructed in a way that effectively matches demand. Even where average pupil/classroom ratios are high, it is not uncommon to find schools where there are unused or underused facilities. In Guinea, as many as 16% of classrooms were recorded as unused in 2000 and in Madagascar the number was about 7% in 2005. This is because of a tendency to construct schools with a standard number of classrooms rather than with the number of classrooms required by the actual and planned enrolment. The provision of smaller schools in rural communities can result in more efficient use of resources, reduce traveling distances and increase access (Theunynck, 2003).

Infrastructure development in schools not only entails the construction of new facilities but it also includes repairs and maintenance of the already existing infrastructure. In most of the primary schools, no proper mechanisms have been set

to aid in infrastructure repair and maintenance. As such, old facilities continue to deteriorate and thus posing insecurity risks to the learners. It may be noted that investments in repairs and maintenance are very cost effective but have historically received little priority or attention from governments or development partners. The current deficit of classrooms is due in part to poor maintenance of the existing building stock. In order to obtain the maximum value for money from educational facilities it is essential that their lifecycle costs are minimized and that they remain serviceable throughout their life (Bonner, Kalra, Leathes, Das & Wakeham, 2010).

A study carried out by Lawther (2009) on the review of infrastructure development approaches in the Solomon Islands indicated that infrastructure development projects in schools were being faced by a number of issues. These included the quality of construction and design, timeliness of delivery, cost, coverage, community empowerment, implementation and future maintenance. Strong community support for schools and education was offset by policy implications due to “fee free” education; the under-utilization of existing infrastructure space and land issues regarding education infrastructure and communities’ dependence on foreign aid.

### **2.3 Influence of funds on infrastructure development**

Financing of education refers to the funding of school conditions and resources to meet quality standards, spending on education inputs to achieve learning goals, allocating adequate revenue flow to enhance performance and monitoring the budgeted resources for education. In 1974, the World Bank report on education

suggested a number of broadened sources of revenue for education beyond the limits of regular government budgets which included various methods by which those who received education could pay greater share of its cost (Sifuna, 1990). It is with these trends that the infrastructure was somehow neglected (Olembo, 1985). This state of affairs was to manifest greatly with the introduction of free primary education (FPE) in Kenya in 2003. At one-point three million new pupils entered into the country's primary schools overwhelming school infrastructure (UNICEF, 2005). The 2003 school facilities census estimated that, nationwide, there was a shortfall of 43,000 classrooms although was not clear what proportion of these are existing semi-permanent (MoEST, 2007).

Funding for physical infrastructure in primary school, has over the years been part of the overall school financing. Physical infrastructure funding will involve the funds or efforts expected on building, land, physical environment, furniture and black wall either in form of repair and maintenance, construction and infrastructure management. Primary school physical infrastructure funding has been a challenging undertaking especially due to scarcity of resources and capacity constraints (Elcher, 1989).

Funding for physical infrastructure is by communities, parents and government. Community funding is very effective in cases in which the community desires to make future sacrifices to satisfy the practical needs. External help should just be a supplement (Theunynck, 2003). One of the most significant external funding bodies

for education is the World Bank which in 1963 issued its first educational loan targeting infrastructure (World Bank, 1988).

Funding for school facilities in Africa was greatly emphasized at independence (Otiende, Wamahiu & Karugu, 1992). However the cost of providing it was found to be three times higher compared to the developed world. This led to self-help where parents became more responsible for capital investments in education (Bogonko, 1992). These trends led to infrastructure neglect. This was manifested greatly with the introduction of FPE in which the enrollment of pupils in school overwhelmed the infrastructure available. This study intends to investigate how funds and grants influence the mobilization of resources used for physical infrastructure development in public primary schools in Kathonzweni Division.

#### **2.4 Community involvement and infrastructure development in primary schools**

After independence, most African countries concentrated their attention on expansion of educational facilities to achieve access and equity (Otiende, Wamahiu & Karugu, 1992). In 1961, a joint conference organized by the UNESCO (United Nations Educational and Cultural Organization) and United Nations Economic Commission for Africa noted that the cost of producing any quality education was three times higher in developing countries than the developed. It was suggested that education cost could be reduced by for example, greater help in self-help building. Many African countries had experienced deficits in that; they had to implement the Addis Ababa conference. In 1960s communities, parents and local authorities were

principally responsible for capital investment in primary education throughout East Africa (Bogonko, 1992). The communities' contributions ranged from poles, thatch cash and labour. In many parts of the world especially the developing world, funding primary school education infrastructure has been largely dependent on local community. For instance in Burma, the Parents' Teachers Association (PTA) has a major input in financing education (Black & Scendlen, 1980).

A survey of 1972/73 by the Ministry of Education there revealed that the PTAs provided for 21.2% of the cost of building 63.8% of the cost of furniture and equipment, 63.4% repairs and 87.7% of general contingencies. In Malaysia, it is the parents associations (PAs). The role of the parents associations is primarily that of material support; for example, contributing to building of school halls, canteens and adding classes. Thinh (1991) observes that the PAs have come to play a central role in construction and maintenance of building and facilities in association with the local education councils. PAs persuade and encourage local production and trading establishments in building educational facilities. In Vietnam, most primary schools have been built by people through the PAs and the local educational councils. The association is also involved in the provision of desks, benches and in teaching aids (Thinh, 1991).

A close connection was found between the presence of religious organizations and the community action activities. This has been attributed to the religious motivated sentiments of altruism and philanthropy (Grier, 1997). Salomon and Anheier

postulated that Christianity and particularly Protestantism permit the flourishing of the community actions because of its emphasis on individualism and its strong independence from state control. Gaduh (2012) also found that different religions had different impacts on the rise of the community action depending on the weight they assigned to charitable acts in terms of time and resources, supporting individual action, commitment to institution building and their relationship with the country.

Ministry of Education (2009) comments that community contribution either in terms of financial resources depending on the economic level or in kind is required to support government and other pertinent contributions. Communities are expected to provide firewood, employ a cook, provide kitchen utensils, cooking water and monitor the utilization of the project's funds, as part of their contribution (MOE, 2009). This study will seek to find out the roles communities play in infrastructure development in primary schools in Kathonzweni Division.

## **2.5 Government policies and infrastructure development in primary schools**

Countries and any of its operations are governed by different regulations and policies put in place. The same also applied in the education sector. Through the ministry of education, the government has been able to set up policies which guide the way things are run in the various schools in the country. The status of infrastructure development in schools has also been captured within the government policies and regulations in the educational sector. It can however be observed that despite the prevalence of polices and regulations still the status of physical infrastructure in

some of the public primary schools may not be up to standards. This may be due to a number of issues such as vandalisms, corruption in the infrastructure development projects and various stakeholders not taking their responsibility seriously among many others.

There are various specifications which have been provided when it comes to physical infrastructure in schools. According to UNESCO (2005), appropriate and sufficient building, child friendly, safe environment enhance child rights. The Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoE, 2005). This emphasizes the importance of complying with Education Act (Cap 211) and Public Health Act (Cap 242). The manual discusses size and number of physical infrastructure for resistance and recommends the need for sufficiency. According to these acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users. However, one may find that the quality of such infrastructures in the respective public schools is inadequate. Moreover, the available facilities are always in poor conditions.

The government policies and regulations also specify that sanitation infrastructure must be safe and built to the required standards. Pit latrines should be built at least 10 metres away from tuition blocks. When ablution block is attached to the other

buildings a high degree of cleanness must be maintained. Pit latrines should be at least 15 metres away from a water point. In mixed schools, girls' sanitation facilities must be separate and offer complete privacy. In construction of sanitation facilities, the following must be observed. The first thirty learners, 4 closet holes. A maximum of 270 learners: one closet for thirty learners. In all schools, appropriate provision should be given to learners with special needs (MoE, 2005).

Various government policies which have been put more emphasis in the Kenyan schools have not solely addressed on the areas of infrastructure development. For instance, one good policy is that of Free Secondary Education (FSE) policy. This policy has been implemented with a main objective of ensuring that deserving children from poor family backgrounds do not miss out on secondary education. as such, this policies misses out on addressing how infrastructures may be put in place so as to support those children from poor backgrounds to accessing education in schools that have good infrastructure and a conducive learning environment (Mbayah & Maende, 2011).

According to an observation made by Republic of Kenya (2010) and Chiuri and Kiumi (2005), poor educational policies which lead to unchecked arbitrary increase of school fees and other levies like teachers motivation, purchase of school bus among others in schools poses a challenge in to the government of Kenya in effectively implementing the FSE policy as well as ensuring that it provides an avenue for infrastructure development consideration in the respective schools.

As it has been reviewed in this section, there are indeed a number of provisions which have been made by the government concerning the state of infrastructure in primary schools. However, one question that still lingers in individuals' minds is, what then is the issue that has led to the prevalence of poor infrastructural development in schools despite government policies having been put in place to address on the issue? Moreover, there are no much empirical studies which have been done on the influence government policies on infrastructure development in schools. As such, this study intends to examine how then the government policies are influencing infrastructure development in primary schools in Kenya.

## **2.6 Influence of attitude on infrastructure development**

The attitude that different stakeholders have may influence the extent to which infrastructure may be developed in schools. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. Multistage random sampling was followed in collection of data from 572 students of different schools located in 6 high and 6 less literate rural blocks in 6 different districts of West Bengal. Four questionnaires were developed to assess (a) Demographic and socio-economic conditions (b) Attitude towards school infrastructure (c) School attendance motivation and (d) Academic performance of students. Nine attitudes (cleanliness, safety, comfort, adequacy, exploring, reliability, easiness, equal opportunity, willingness to participate in school activities) towards school infrastructure were initially conceptualized and accordingly one highly reliable (Kuder Richardson reliability = 0.90) 68-item questionnaire was developed.

Results revealed that attitude varies with differences in religion, socio economic status, districts, literacy rate of blocks, and with available school infrastructure facilities. The study also found out that attitude determines one's motivation to use infrastructure.

The involvement of community members in the infrastructural development is also a key element which may be largely influenced by the type of attitude that they have towards their responsibilities. A study by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure. It was shown that if the public positively viewed the infrastructure as being beneficial, they directly engaged themselves in developing the infrastructure and vice versa.

Another study was carried out by Gbolagade, Omotesho, Komolafe, Oni & Adereti (2014) to examine rural youth participation in infrastructural development in Isin local government area of Kwara State, Nigeria. Data were collected with the aid of a questionnaire, which was analyzed using frequency count and percentages. Chi-square analysis was used to test the hypothesis of significance between the socio-economic characteristics and the level of participation in infrastructural development. Besides, in infrastructural development as well as the associated constraints which include finance, availability of materials, technical knowledge and time, attitude was raised as a key issue which influenced the participation of youth in infrastructure development. The limitation of this study was that it only focused on

infrastructural development in the community and thus there is need for the current study to be done to investigate on how attitude influence infrastructure development in schools.

It is widely recognized that parents can provide valuable help for their children by showing that they are interested in their school work and see the value of what they study at school. There is strong evidence that this form of support can have a real and positive effect on performance of children at school and, therefore, on their future (The Scottish Office, 2002). The same concept applies also when it comes to parents showing interest on the learning environments of their children. The interest shown is an indication of positive attitude towards infrastructure development. Lack of interest among parents in the infrastructure of schools that pupils use in their learning process may influence their extent of involvement in the development of infrastructure in schools.

Moreover, the attitude of parents in the development process of infrastructure is very important. Through positive attitude, parents may get themselves involved in various ways. These ways include but may not be limited to being involved in decision making processes at school level, collaborating with the community by identifying and integrating resources and services from the community to strengthen school programmes and infrastructure development, family practices and student learning and development (Nandango, Obondoh & Otiende, 2005).

## **2.7 Summary of literature review**

The literature review has shown the importance of effectiveness of physical infrastructure funding in primary schools has shown that any study of school funding has to take into account school physical infrastructure (Crampton & Thompson, 2003). The review has also attempted to establish a link between a school's physical infrastructure funding and quality education. Studies also show that effective school physical infrastructure funding will positively affect school quality (American Federation of Teachers (AFT), 2008). However, most studies (UNESCO, 2010; Crampton & Thompson, 2008), have concentrated on the effect of infrastructure funding on specific learning outcomes for example, teacher and student motivation. The literature review also suggests that funding for physical infrastructure in school is a good investment that gives positive outcomes (Mabula, 2011). However, there is little that has been done to study infrastructure development in primary schools, with more specificity to Kathonzwani Division.

## **2.8 Theoretical framework**

This study was guided by the Reinforcement theory of B.F. Skinner developed in 1953. This is a fundamental learning theory based on the premise that it is believed that behaviour is a function of its environment. Positive school environment includes the infrastructure and other facilities which make the learning environment better. This is positive 'reinforcement' which supports learning.

There are a number of strengths which have continuously supported the prevalence of reinforcement theory in many organizations. These strengths include the fact that it Provides clues to motivation, keeps employees involved, it is easily applied in any given setting and Impressive research support (Redmond, 2010). Despite the strengths, there are a number of challenges which are faced in the application of the theory. These challenges/weaknesses include difficulty in identifying rewards/punishments, hard to apply to complicated forms of behavior, imposes on freewill and it effectively often expires. Moreover, reinforcement theory also disregards internal motivation.

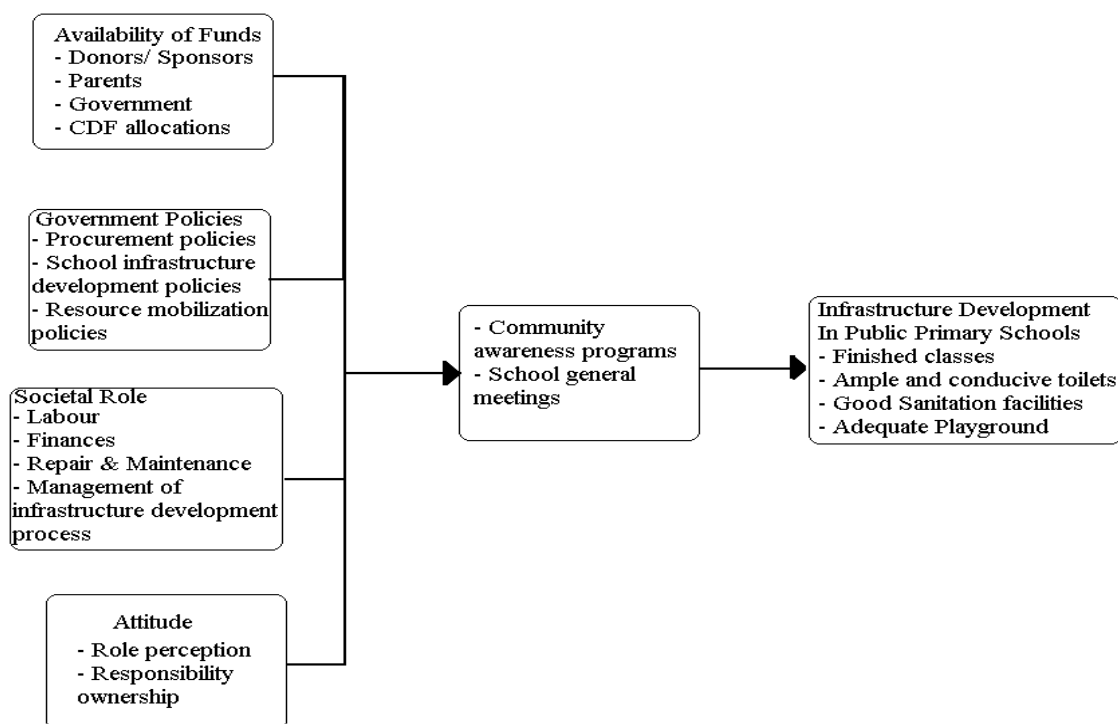
In the context of this study, reinforcement theory was found to be much more relevant. The theory was considered appropriate because the learning environment created by having suitable infrastructure in school forms part of a conducive environment for the learners. This is realized in the form of appropriate classroom, sufficient desks, toilet facilities, a kitchen to cater for their meals and playground for physical fitness and even spacious and well-tended lawns where children will relax during their free time form class.

Moreover, when the head teacher ensures that such facilities are available, they are involved in helping to set a suitable environment for nurturing good behaviour which is expected to translate into better performance by children. The good learning environment as a reinforcement factor serves to nurture and support good behaviour for the pupils. In the absence of such facilities, the learning environment is

compromised and the learners may not have sufficient support to influence them towards the desired behaviour change that the school should build in them.

## 2.9 Conceptual framework

This study conceptualizes that the dependent variable depends upon various other independent variables. Development of infrastructure in schools has been considered as the dependent variable which depends upon various independent variables which include availability of funds, government policies, role of the community and stakeholders' attitude. These processes considered in the mobilization of resources for funds include fundraisers, grants, labour, school fees and sponsorships. The relationship between the variables is as summarized in Figure 2.1.



**Figure 2.1: Factors influencing infrastructure development in public primary schools**

As it has been conceptualized in this study, there are various factors which affect infrastructure development in public primary schools. These include availability of funds, government policies, societal role and attitude. To begin with, schools may try to evaluate the amount of funds they have and see whether it can facilitate the process of infrastructure development in schools. Without funds, schools may not develop new or even repair the already available physical infrastructure. On the other hand, the government policy provision also does influence the development of infrastructure especially in public schools. These schools are always under the management and control of the government. As such, if the policies formulate do not address the infrastructure development in the school, no progress will be experienced.

The involvement of society and attitude are two key factors which go hand in hand together. It may be observed that if the society that is inclusive of parents have negative attitude towards infrastructure development in schools, then they will not be involved in the process and vice versa. Moreover, the roles of the societal members which include provision of labor, finances, repair and maintenance may not be fully achieved if the participants have a negative attitude. For these factors to be properly utilized so as to facilitate infrastructure development there are a number of processes which are to be put in place. These include constant community awareness programs on infrastructure development and school general meetings where parents are encouraged to participate in the infrastructure development process. Through this process, the schools are able to improve on infrastructure development in schools.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

This chapter presents the research design, target population, sample size and sampling procedures, research instruments, data collection procedure and data analysis techniques.

#### **3.2 Research design**

Research design is a logical and valuable way of looking at the world (Gall, Borg & Gall, 2003). A descriptive survey research design was used in this study. This design was used because it enables investigation into the subject under study. Gay and Airasian (2000) indicate that descriptive survey design is used on preliminary and exploratory studies to enable the researcher collect information, summarize, present and interpret for clarification purposes.

In the context of the study, the research design enabled the researcher to collect information from various key respondents on the factors influencing infrastructure development in public primary schools in Kathonzweni division. This was through the help of questionnaires, interview guides and observation guide.

#### **3.3 Target population**

This study was conducted in all public primary schools in Kathonzweni division of Makueni County. According to records obtained from the office of the DEO

Kathonzweni district, this division has 27 public primary schools. The target population consisted of 27 head teachers, the DEO, the DQASO and the AEO. Additionally, the B.O.M chairpersons (27) and 27 PTA chairpersons also targeted in the study.

### **3.4 Sample size and sampling procedures**

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda & Mugenda, 2003). This subgroup was carefully selected to be representative of the whole population with the relevant characteristics. Each member or case in the sample is referred to as subject, respondent or interviewees. The sample for this study consisted of 27 head teachers, 27 Board of Management and 27 PTA Chairpersons, DEO, DQASO and AEO. In total, the sample size for this study was eighty four (84).

Sampling is referred to as a process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group (Orodho, 2004). A census sampling method was used in this study to select all head teachers, B.O.M and PTA chairpersons. This sampling method was used in this study owing to the fact that the respondents are few and thus for comprehensive data to be obtained it was necessary to select all of them. In total, 27 head teachers, 27 PTA chairpersons and 27 B.O.M members were selected to participate in the study.

On the other hand, purposive sampling method was used to select the DEO, DQASO and AEO. This sampling procedure was used simply because these respondents held key positions in the education sector in the district and thus they were in a better position of providing adequate, relevant and key information on the area under study. moreover, these respondents were held as key informants in the study.

### **3.5 Research instruments**

This study employed questionnaires, interview guides and an observation checklist.

#### **Questionnaires**

A questionnaire is a research instrument that gathers data on a large sample, save on time, and can uphold confidentiality. According to Lovell and Lawson (1970), questionnaires are widely used in education to obtain information about current condition and practice, and to make attitudes and opinions. Further, Best and Khan (2003) points out that a questionnaire enables a person administering them to explain the purpose of the study and to give meaning of the items that may not be clear. They have the advantage of asking specific questions which call for specific answers. The answers can be classified and the information contained in the responses quantified. In this study the questionnaires was expected to elicit information from head teachers. The questionnaire was structured based on the research objectives.

#### **Interview guide**

Interview guide was used because they yield highest cooperation and lowest refusal rates, offers high response quality and takes advantage of interviewer presence and

its multi-method data collection, which combines questioning, cross-examination and probing approaches (Owens, 2002). The researcher interviewed the Board of Management (B.O.M) and Parent Teacher Association (P.T.A) chairpersons, AEO, DQASO and DEO to elicit information that met the study objectives. The interview guide was semi-structured (with some closed and open ended items) and was divided into two main sections, namely demographic characteristics of the respondents and the factors that influence infrastructure development in public primary schools.

### **Observation checklist**

The researcher also observed the infrastructural facilities and school records to help in assessing their levels of infrastructure development. Observation makes the observer to detach himself from the social setting being investigated and allows him to gain a more objective view of the reality being investigated (Scott & Usher, 2004). Moreover, the checklist was used to assess the quality, quantity and conditions of the infrastructure.

### **3.6 Validity of instruments**

Validity is concerned with establishing whether the instruments are measuring what they are supposed to measure (Gay, 1992). Orodho (2009) defines it as the degree to which a test measures what it purports to be measuring. It is an important characteristic of a scientific instrument. It is correlation of a test with some outside independent criteria which are regarded by experts as the best measure of the trait. Singh (1986) and Orodho (2009) tend to concur that validity is concerned with

general ability. When a test is valid, it means its conclusion can be generalized in relation to the general population. The researcher used peer review of the instruments to test their validity and also sought for expert knowledge of the supervisors to ascertain their validity. Three public schools from the neighboring Mavindini Division were used as a pilot study to pre-test the validity of the instruments.

### **3.7 Reliability of instruments**

Kombo and Tromp (2006) define reliability as the degree to which a test consistently measures whatever it measures. That is, the ability to consistently yield the same results when repeated measurements are taken of the same object under the same conditions (Gay, 1999). To establish the reliability of the research instruments, the researcher carried out a pilot test of the instruments using another similar group with the same characteristics as the one targeted in the study. The reliability of the instruments was computed using Cronbach's Alpha reliability coefficient method. The most common internal consistency measure is Cronbach's alpha, which is usually interpreted as the mean of all possible coefficients.

The data was computed using SPSS computer program to determine Cronbach's reliability coefficient. The respondents for the pilot test were picked from 3 public primary schools from the neighboring Mavindini Division. These schools and the respondents did not form part of the actual study. After filing the questionnaires, they were collected, scored and manually tested for reliability. The correlation coefficient found was 0.8. According to an observation made by George and Mallery (2003), if a

Cronbach's reliability correlation coefficient is greater or equal to 0.7 is obtained then the questionnaires are treated as reliable. As such, the questionnaire was held as reliable. On the other hand, the interview guides and observation checklist were not tested for reliability.

### **3.8 Data collection procedures**

First, the researcher requested for an introductory letter from University of Nairobi. He then sought for a permit from the National Commission for Science, Technology and Innovation (NACOSTI). This was presented to the District Education Officer in charge of Kathonzweni for authority to carry on with research in the study locale. The researcher then visited the schools for introductory purposes and requested for appointment from the head teachers about when to administer the instruments to the respondents.

The questionnaire was administered in person and collected once filled. The researcher also booked meetings with the BoM and PTA chairpersons for the interviews. The interview was conducted in a conducive environment. Moreover, during the distribution of the questionnaires the researcher was also observing the various infrastructures in the school and thus ticking the observation checklist according the prevailing conditions. Lastly, a meeting with the DEO, DQASO and AEO was also organized and the interview conducted. Once the data collection was done, the data was picked and used for analysis.

### **3.9 Data analysis techniques**

Collected data was first checked for completeness before analysis. Data analysis involved both qualitative and quantitative. Quantitative data was analysed using descriptive statistics, which involved a process of transforming a mass of raw data into tables, charts, with frequency distribution and percentages which formed a vital part of making sense of the data (Mugenda, 2003). The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) program and presented using tables, graphs and pie charts and prose form to give a clear picture of the research findings at a glance. The qualitative data was subjected to analysis by synthesizing the responses and thematically arranging them in conformity with the study objectives. This helped the researcher to summarize the information and present them as discussions on infrastructure development in schools.

### **3.10 Ethical considerations**

In this study, the rights of the research participants were ensured. This was done based on ensuring that the principles governing research participants were followed. The principle of voluntary participation which requires that people are not coerced into participating in research was followed. The informed consent of the participants was also ensured by explaining the aim of the study and the procedures involved. The participants' information was confidential. Further the principle of anonymity was also adhered to. The participant remained anonymous throughout the study.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

The chapter is presented based on the following sections: response rate, background information of the respondents, availability of funds and infrastructure development in schools, role of community in infrastructure development, policies and regulation on infrastructure development and stakeholders' attitude and infrastructure development.

#### 4.2 Response rate

This section presents the response rate of the respondents who participated in the study. During data collection, the researcher issued twenty seven questionnaires to the head teachers, twenty seven interview guides to the PTA and B.O.M respectively and one interview guide for AEO, DQASO and DEO respectively. The results are presented in Table 4.1

**Table 4. 1: Instrument response rate**

<b>Respondents</b>	<b>Issued instruments</b>	<b>Received Instruments</b>	<b>Percentage (%)</b>
Head Teachers	27	27	100
PTA	27	25	92.6
B.O.M	27	24	88.9
AEO	1	1	100
DEO	1	1	100
DQASO	1	1	100
<b>TOTAL</b>	<b>84</b>	<b>79</b>	<b>94%</b>

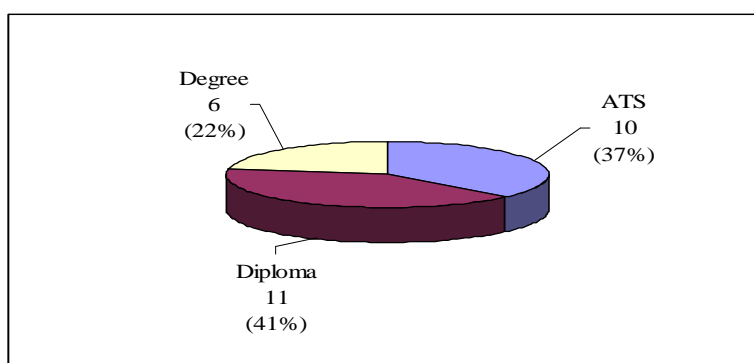
A total of 84 instruments were given to the respondents. However, only 79 instruments were received that had been fully responded to. This translates to a response rate of 94%. This representation is good enough for the data analysis.

### 4.3 Background information of head teachers

The head teachers who participated in this study were given a number of questions for background information. These questions captured elements such as educational qualification, working experience, number of pupils enrolled in schools and the conditions of the available infrastructure in public primary schools.

#### 4.3.1 Highest educational qualification

The head teachers were asked to give their highest educational qualification. The educational qualification was asked so as for the researcher to establish the educational qualification of teachers in schools who are involved in infrastructure development. This was categorized into P1, ATS, Diploma, Degree and Masters Degree. However, only a few academic qualification responses were provided. These are as summarized by Figure 4.1.

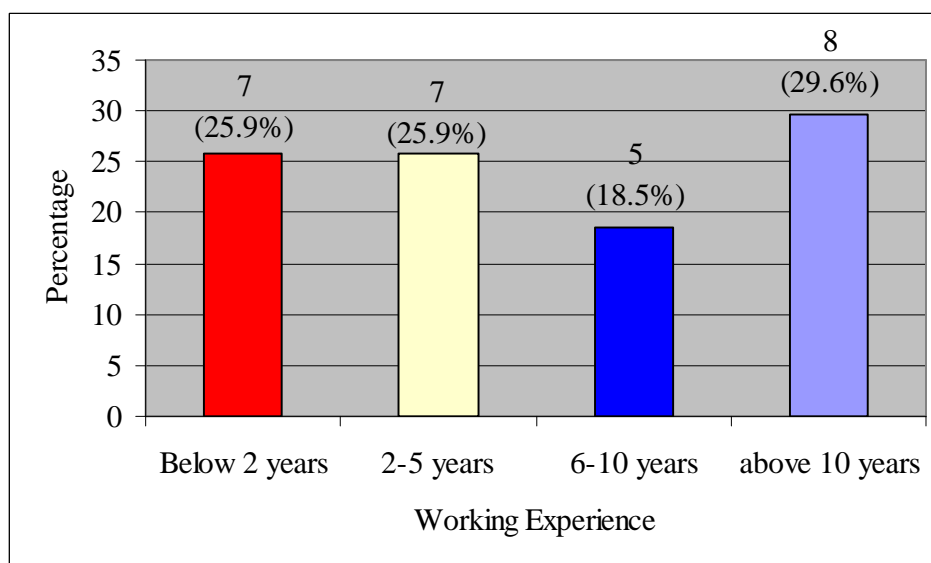


**Figure 4. 1: Distribution of the head teachers by their highest education qualification**

The data in figure 4.1 indicates that majority of the primary school head teachers 11 (41%) had a diploma as their highest educational qualification. Slightly more than a third of them 10 (37%) however indicated that they had been able to achieve a degree as their highest academic qualification.

### 4.3.2 Working experience

The working experience of the head teachers was also looked into in this study. The working experience of the teachers was looked into so as to establish the period individuals have been involved in the infrastructure development processes in the school. This was categorized into below 2 years, 2-5 years, 6-10 years and above 10 years. The data is presented in Figure 4.2.



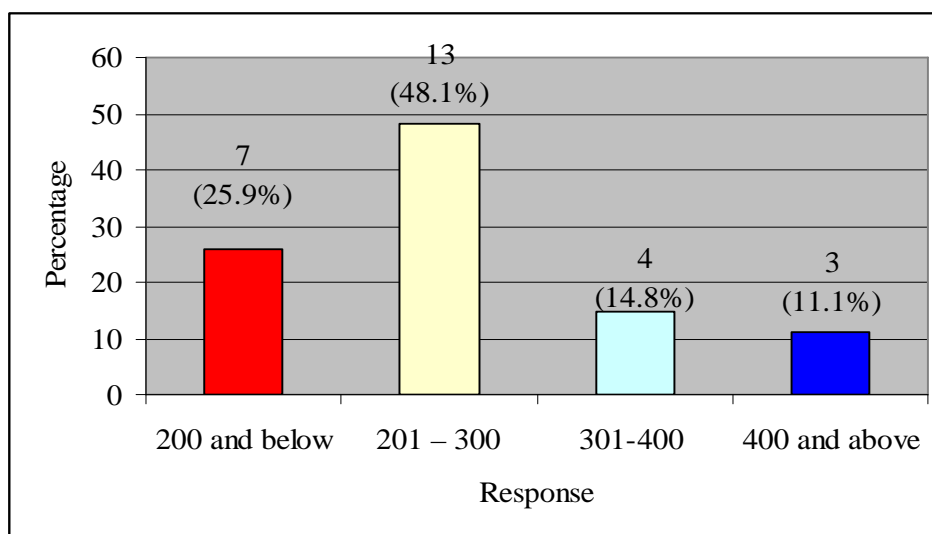
**Figure 4. 2: Distribution of head teachers by their working experience**

The data in figure 4.2 shows that there is an even distribution of head teachers with reference to working experience. Slightly more than half of the head teachers 14 (51.8%) had a working experience of less than 5 years whereas 48.1% of them had a

working experience of more than 6 years. The distributions however show that most of the teachers in the public primary schools indeed have been in the schools for quite a good period to be in a position to facilitate infrastructure development processes in schools.

### 4.3.3 Number of pupils enrolled in schools

The head teachers were further asked to state the number of pupils attending their respective schools. The information or numbers provided were further summarized into the following categories 200 and below, 201-300, 301-400 and 400 and above pupils. The responses are as summarized by the Figure 4.3.



**Figure 4. 3: Distribution of head teachers response on the number of pupils enrolled in schools**

Figure 4.3 shows that slightly less than a half of the head teachers 13 (48.1%) indicated that the number of pupils attending their respective schools ranged from 201-300 pupils. Slightly more than a quarter of them 7 (25.9%) however indicated

that the number of pupils was not more than 200. according to these distributions, it may be deduced that indeed public primary schools contain quite a number of pupils and thus their population may pose a challenge to the available infrastructures.

#### 4.3.4 Conditions of the available infrastructure in school

The head teachers were further asked to rate whether the conditions of the various infrastructures in the schools were good, very good or poor. The infrastructure listed included classrooms, school furniture, toilet, kitchen and water point/tanks. Table 4.2 present the data.

**Table 4.2: Distribution of head teachers responses on the quality of infrastructure in schools**

	Good		Very Good		Poor	
	F	%	F	%	F	%
Classrooms	23	85.2	-	-	4	14.8
Furniture	20	74.1	-	-	7	25.9
Toilet	16	59.3	1	3.7	10	37.0
Kitchen	12	44.4	1	3.7	14	51.9
Water point/ Tank	13	48.1	6	22.2	8	29.6

Table 4.2 shows that majority of the head teachers were positive that the conditions of the infrastructure in schools were in a good state. However, there are those schools in the district which have infrastructures that are in a poor state. One of the leading infrastructures that are in poor conditions in the schools is the kitchen

(51.9%), followed by toilets (37%), water points/tanks (29.6%) and school furniture (25.9%) respectively.

The researcher also looked at the conditions of the infrastructure with the help of the observation guide. Through the guide, it was found that not all the schools in the division had quality infrastructure. Moreover, some of the classes had deteriorating facilities and this posed a great challenge on the learning processes in the school. Moreover, the researcher also observed that there were certain schools which had unfinished structures in the school. Other infrastructural elements that were found to be inadequate in the schools compare to the ratio of students available included play grounds, classrooms, toilets and water points. This finding justifies a previous research which was done on the impact that the enrollment rates had on infrastructure in schools. According to an observation by the UNICEF (2005), the increased enrollment of pupils in schools since the inception of free primary education has contributed to increased pressure on the available infrastructure.

#### **4.4 Availability of funds for infrastructure development**

Availability of funds plays a critical role when it comes to initiating projects on infrastructure development. When the funds are inadequate, then the projects may not be able to progress effectively. As such, this study sought to establish how adequacy of funds affected infrastructure development in primary schools in Kathonzweni Division.

#### 4.4.1 Methods Used To Raise Money to Develop Infrastructure in Schools

The head teachers were asked to indicate the methods that they used to raise money to develop infrastructure in schools. The methods that were suggested included government allocations, CDF funds, religious organizations, school fees, parents' contributions and donors. The data is presented in Table 4.3

**Table 4.3: Distribution of head teachers on the methods used to raise money for infrastructure development in schools**

	Yes		No	
	F	%	F	%
Parents Contributions	23	85.2	4	14.8
Government allocation	20	74.1	7	25.9
CDF	18	66.7	9	33.3
Donors	9	33.3	18	66.7
Religious organizations	7	25.9	20	74.1
School Fees	5	18.5	22	81.5

Table 4.3 shows that an overwhelming majority of the head teachers (85.2%) agreed that they used parents' contribution to raise money for infrastructure development in the school. Majority of them (74.1%) also indicated that government allocation was a key method used for generating money to facilitate infrastructure development in the schools. Other key methods suggested by the head teachers included CDF Funds (66.7%), donors (33.3%) and religious organizations (25.9%) respectively.

#### 4.4.2 Source of funds in schools for infrastructure

Further, the head teachers were also asked to specify various sources of funds for different infrastructures available in schools. The sources that were highlighted included fees, CDF, Donors, Parents contribution and Donors. The data is presented in Table 4.4.

**Table 4. 4: Distribution of head teachers on the sources of funds for different infrastructures in the school**

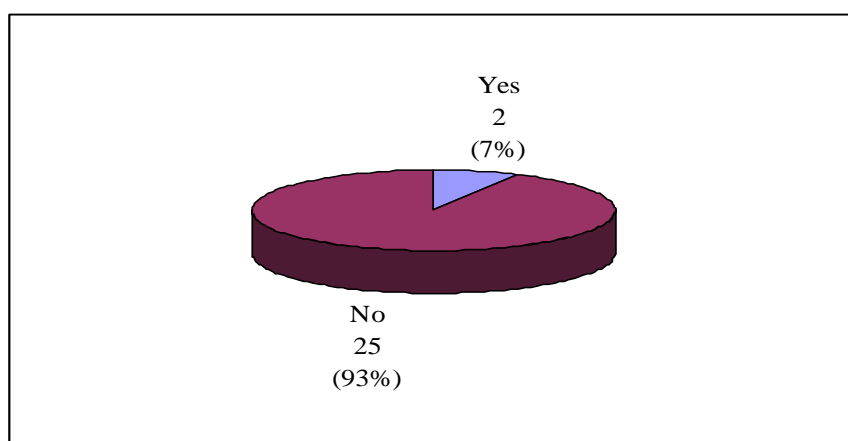
	Fees, CDF, Donors		Parents Contribution		Donors	
	F	%	F	%	F	%
Classrooms	18	66.7	7	25.9	2	7.4
Furniture	6	22.2	18	66.7	3	11.1
Toilet	8	29.6	12	44.4	7	25.9
Kitchen	5	18.5	18	66.7	4	14.8
Water point/ Tank	5	18.5	1	3.7	21	77.8

According to the data in Table 4.4, majority of the head teachers (66.7%) indicated that the funds came from the fees, CDF funds and donors. A quarter of them (25.9%) indicated that the money came from the contributions given by parents towards classroom infrastructure development. When asked to indicate the sources of funds for furniture in schools, majority of the head teachers (66.7%) indicated parents' contributions. Only a few of them (22.2%) indicated the sources to be from Fees, CDF funds and donors.

In terms of toilet, a good percentage of the head teachers (44.4%) indicated that parents' contribution was largely used in the development of toilets in schools. Slightly more than a quarter of them (29.6%) indicated that Fees, CDF funds and Donors were the main sources of funds for the development of toilet faculties. However, from the open ended questions, the teachers indicated that they still faced a challenge in the quality of toilets in the school. Parents' contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in schools. On the other hand, donors are the ones who fund the development of water points/ tanks in the schools.

#### **4.4.3 Whether funds provided for physical infrastructure is adequate**

The head teachers further gave their responses regarding whether the funds that were being provided were adequate enough to support infrastructure development in the schools. The data is presented in Figure 4.4.

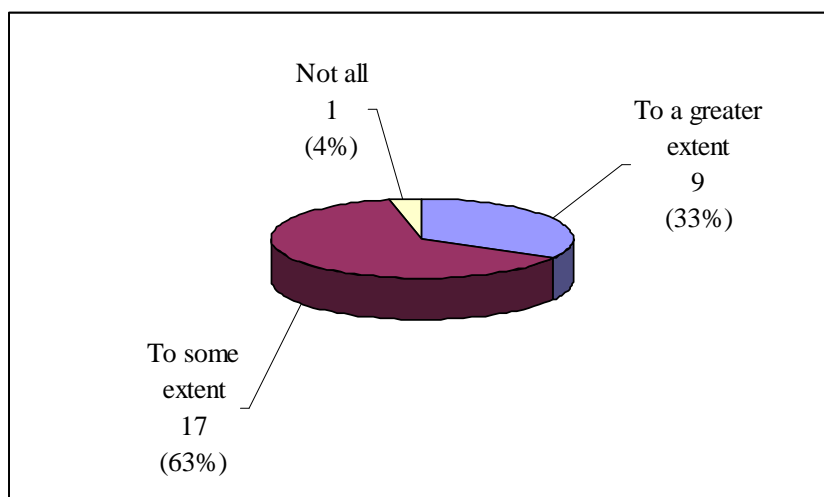


**Figure 4. 4: Distribution of head teachers on whether the funds provided for physical infrastructure development were adequate**

An overwhelming majority of the head teachers 25 (93%) indicated that the funds provided for infrastructure development were not adequate. Only two of them indicated that the funds were adequate.

#### 4.4.4 Extent to which funds influenced infrastructure development in the school

The head teachers were lastly asked to indicate the extent to which funds influenced infrastructure development in their respective schools. Figure 4.5 shows a summary of the findings obtained.



**Figure 4. 5: The extent to which funds influenced infrastructure development in the school**

The results in figure 4.5 show that majority of the head teachers 17 (63%) were in agreement that the availability of funds did influence infrastructure development in their respective schools to some extent. This was further supported by a third of them 9 (33%) who indicated that it did influence but to a greater extent.

In responding on the sources of funding for infrastructure development in schools, the PTA members reported that the school sources its funds for infrastructure development through the parents, donations and CDF and County government. This was further supported by the BoM who also indicated that the parents, donors and the government contributed funds used for infrastructure development in the school. The BoM members also reported that for resource mobilization practices, the school wrote proposals which were then issued to government or possible donors to support the infrastructure development process. The PTA and BoM however indicated that the funds which were being provided were not adequate to support full development of infrastructure in the school. This in the long run led to some infrastructures being left unfinished and thus also posing health risks to the pupils in the schools.

The AEO, DQASO and DEO also gave their own response regarding the sources of funding for infrastructure development in schools. All of them indicated that the key sources included government, CDF funds, MoEST, NGOs, donors and parents. The AEO further went on ahead to report that “Factors that made the sources mentioned above prevalent chooses as the main ways of raising money for funding school infrastructure included school enrollment and availability of general awareness”.

Schools have been suggested as to contribute towards the funding of infrastructure development in schools. This is in line with Elcher (1989) who observed that school financing has been the major source of funding for infrastructure development in primary schools. He further went on ahead to report physical infrastructure funding involved the funds or efforts expected on building, land, physical environment,

furniture and black wall either in form of repair and maintenance, construction and infrastructure management.

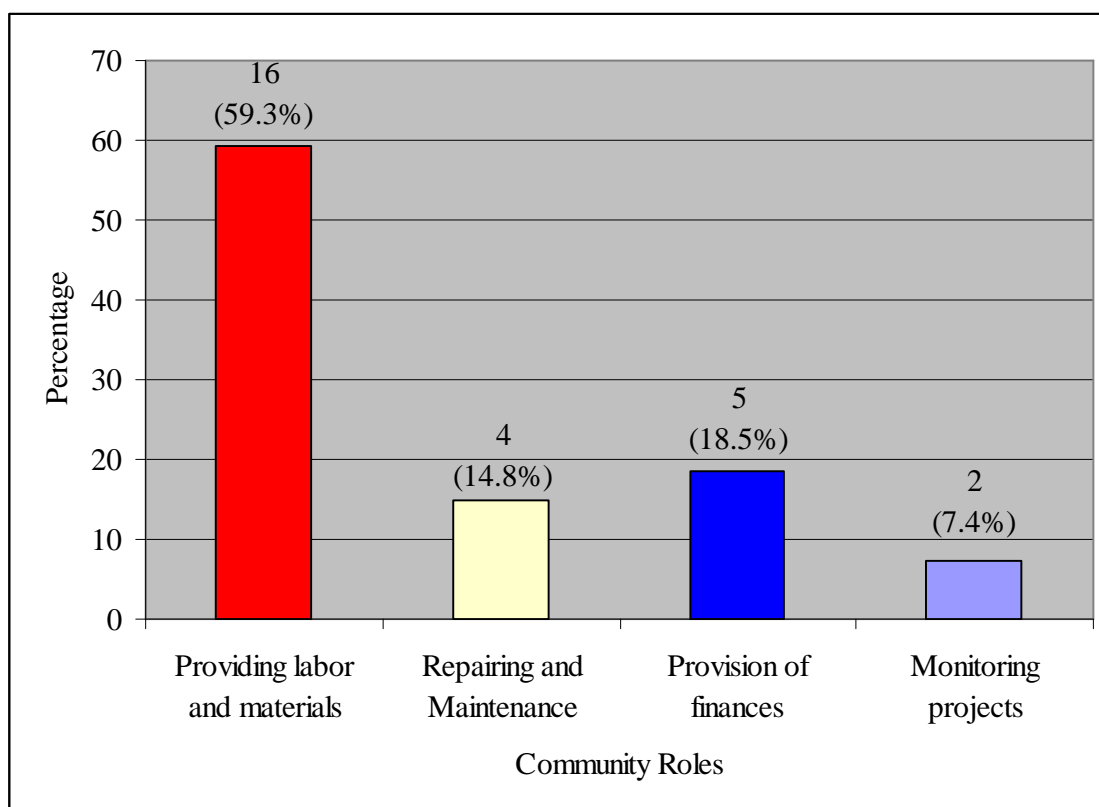
Besides schools being a source of finance, this study has also established that parents, government contributions and CDF funds contributed to the finances used in infrastructure development. This finding concurs with The Unynck (2003) who reported that funding for physical infrastructure was the responsibility of communities, parents and government. Community funding is very effective in cases in which the community desires to make future sacrifices to satisfy the practical needs. External help should just be a supplement. The study also established that donors were also involved in providing finances to support infrastructure development. One of the external donors as noted by World Bank (1988) is the World Bank. It is reported that World Bank is the most significant external funding bodies for education.

#### **4.5 Role of community in infrastructure development**

Infrastructure development in schools may not be effectively or fully realized without the cooperation of the school community members as well stakeholders. This study was thus set to determine how community involvement influenced infrastructure development in primary schools in Kathonzweni Division. To answer this objective, there are a number of questions that were asked. These included the community member roles in infrastructure development, members involved in repairing broken furniture and the extent to which community roles have contributed towards infrastructure development.

#### 4.5.1 Community members' role in infrastructure development

The head teachers were asked to indicate the role that the community members played when it came to infrastructure development in the schools. Some of the roles suggested included providing labor and materials, repairing and maintenance, provision of finances and monitoring infrastructure development projects in the schools. The responses obtained are as shown by Figure 4.6.



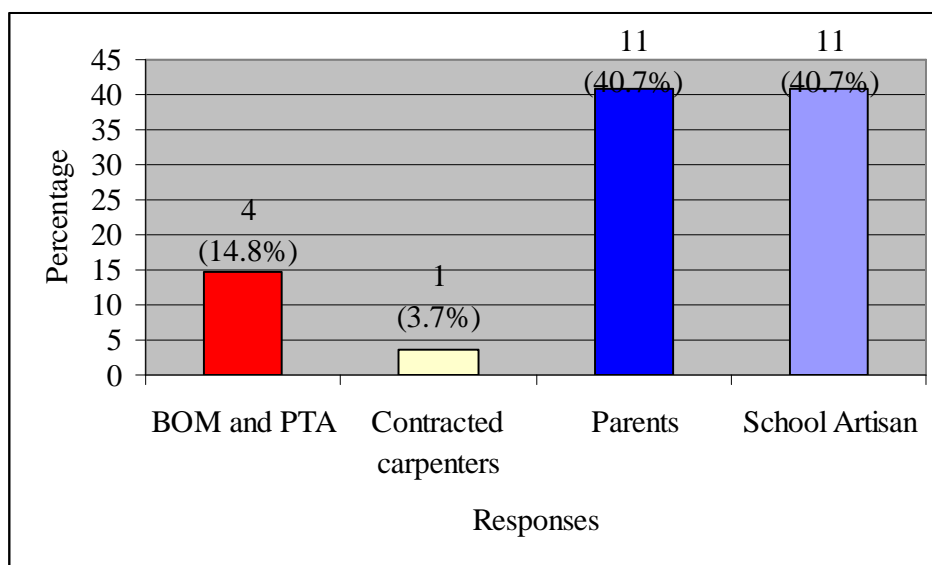
**Figure 4. 6: The role of community in infrastructure development in schools**

The data in figure 4.6 shows that slightly more than half of the head teachers 16 (59.1%) indicated that the community members were involved providing labor and

materials. Other roles played by the community members in infrastructure development included repairing and maintenance and provision of finances.

#### 4.5.2 Members involved in repairing broken furniture

Moreover, the head teachers went on ahead to indicate some of the community members who were being involved in the repairing of broken down furniture in the school. These members included Board of Management, Parent and Teachers Association, Contracted Carpenters, parents and the school. The data is presented in Figure 4.7.

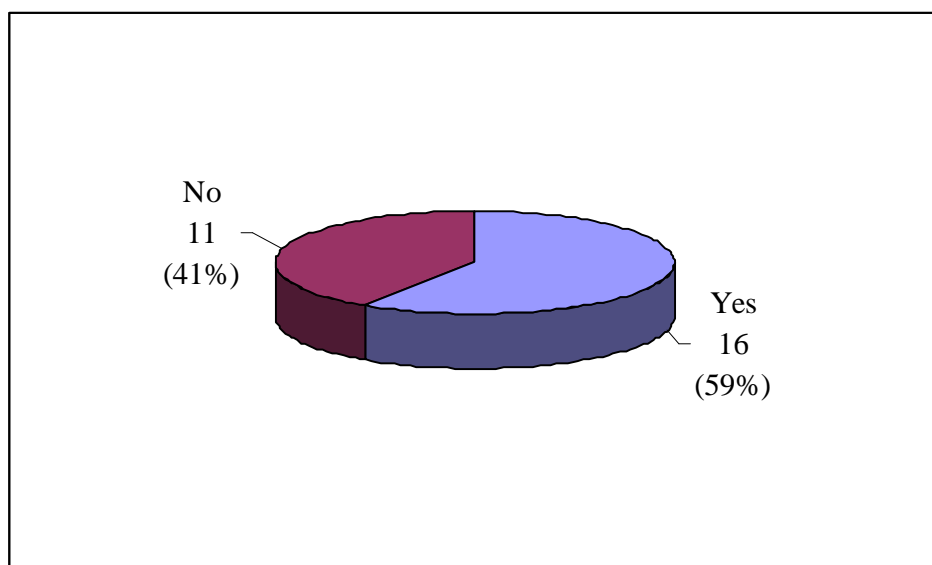


**Figure 4. 7: Head teachers responses on who repairs broken down furniture in the school**

The results in figure 4.7 show that majority of the head teachers indicated that parents 11 (40.7%) and school artisans 11 (40.7%) were the key community members involved in the repairing of broken furniture in the schools. A few of them

4 (14.8%) however indicated that the Board of management and PTA were the key partners involved in the repairing of broken infrastructure.

Having known the members involved in repairing broken furniture in the schools, the head teachers were further asked to indicate whether these furniture were being repaired on time. The data is presented in Figure 4.8.

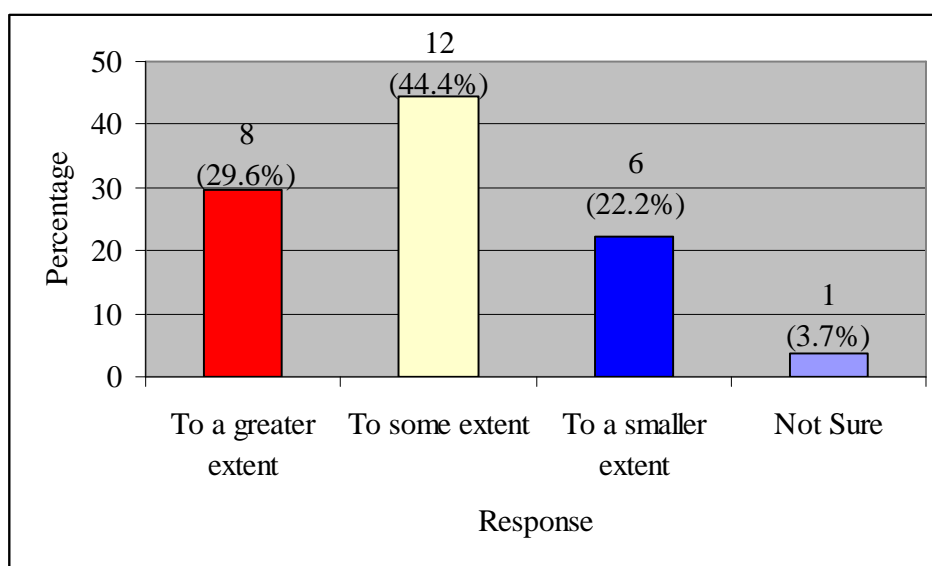


**Figure 4. 8: Distribution of head teachers response on whether the involved community members repaired the broken furniture in time**

The findings in figure 4.7 show that slightly more than half of the head teachers 16 (59%) agreed that the broken furniture was being prepared in time. However, a good percentage of them 11 (41%) indicated that the broken furniture was not being repaired in time.

### 4.5.3 Extent to which community roles have contributed towards infrastructure development

The respondents gave their responses on the extent to which community roles contributed towards infrastructure development in public primary schools in the district. Figure 4.9 presents a summary of the findings obtained.



**Figure 4. 9: Distribution of head teachers on the extent to which community roles have contributed towards infrastructure development**

The data in figure 4.9 show that a good percentage of the head teachers were positive regarding the extent to which community members contributed towards infrastructure development. 44.4% of them indicated to some extent whereas slightly more than a quarter of the head teachers 8 (29.6%) indicated that community roles contributed towards infrastructure development to a greater extent.

With regards to community involvement in infrastructure development, the PTA members had a number of responses to provide. They reported that the community members have been involved in infrastructure development through donating items such as water tanks among many others; some of the community members are less concerned and think that it is the responsibility of the MOE to do all the infrastructural development works in the schools; the community members ensure that the government has developed enough buildings in the school. This was further supported by the BoM who indicated that indeed the community members played various roles in facilitating infrastructure development in the school. They reported that community members provided labour as well as materials which aided in the infrastructure development process. However, they reported that a key challenge which affected the full participation of the community in infrastructure development was poverty.

The AEO reported that:

Poverty and misplaced priorities are major challenges affecting infrastructure development as well as resource mobilization among the community members. This affects to a greater extent the involvement of the community in supporting development in the respective schools.

DQASO officer on the other hand reported that the level of education and awareness is a critical issue which affected the involvement of various stakeholders in the

infrastructure development process in schools. Further, the officer went on ahead to report that:

Poverty levels and political interferences are the major issues which are affecting the effective involvement of local community members in infrastructural development in the respective public schools in the area.

On the other hand, the DEO reported that:

Poverty is a major issue which is hindering the full involvement of local community members in the infrastructure development. And most of the funds are used to purchase food instead of being put into infrastructure development.

In 1960s communities, parents and local authorities were principally responsible for capital investment in primary education throughout East Africa (Bogonko, 1992). The communities' contributions ranged from poles, thatch cash and labour.

Black & Scendlen (1980) also supports the findings of this study by indicating that funding primary school education infrastructure has been largely dependent on local community. Additionally, MOE (2009) comments that community contribution either in terms of financial resources depending on the economic level or in kind is required to support government and other pertinent contributions. Communities are expected to provide firewood, employ a cook, provide kitchen utensils, cooking water and monitor the utilization of the project's funds, as part of their contribution (MOE, 2009).

Moreover, the findings of this study is in-line with a survey carried out by Thinh (1991) which observed that PTAs provided for 21.2% of the cost of building 63.8% of the cost of furniture and equipment, 63.4% repairs and 87.7% of general contingencies. In Malaysia, it is the parents associations (PAs). The role of the parents associations is primarily that of material support; for example, contributing to building of school halls, canteens and adding classes. The PAs have come to play a central role in construction and maintenance of building and facilities in association with the local education councils. PAs persuade and encourage local production and trading establishments in building educational facilities. In Vietnam, most primary schools have been built by people through the PAs and the local educational councils. The association is also involved in the provision of desks, benches and in teaching aids etc (Thinh, 1991).

In further supporting the findings of this study on the involvement local community members in infrastructure development, Salomon and Anheier postulated that Christianity and particularly Protestantism permit the flourishing of the community actions because of its emphasis on individualism and its strong independence from state control. Gaduh (2012) also found that different religions had different impacts on the rise of the community action depending on the weight they assigned to charitable acts in terms of time and resources, supporting individual action, commitment to institution building and their relationship with the country.

#### 4.6 Policies and regulation on infrastructure development

Being public institutions of learning, government policies and regulations have a role that they may play in influencing infrastructure development projects. This study investigated how policies and regulations affect infrastructure development in primary schools in Kathonzweni Division. The head teachers were asked a number of questions and expected to give their responses as whether yes or no. Table 4.5 summarizes their responses.

**Table 4.5: Distribution of head teachers response on various issues regarding policies for infrastructure development**

	Yes		No	
	F	%	F	%
I am aware of the policies put in place by the government on infrastructure development in public schools	23	85.2	4	14.8
The school has a resource mobilization plan and policies which aid in infrastructure development policies	20	74.1	7	25.9
The available policies encourage the involvement of teachers in mobilizing resources for infrastructure development.	22	81.5	5	18.5
The policies put in place by the government encourage training of head teachers' involvement in infrastructural management and development.	24	88.9	3	11.1

Table 4.5 shows that majority of the head teachers (85.2%) indicated that they were aware of the policies put in place by the government on infrastructure development in public schools. A few of them (14.8%) indicated that they were not aware. In terms of resource mobilization plans, majority of the head teachers (74.1%) indicated that the school has a resource mobilization plan and policies which aid in infrastructure development policies. A quarter of them (25.9%) indicated that there were no such policies in the school.

The data in table 4.5 further showed that majority of the head teachers (81.5%) were positive by agreeing that the available policies encouraged the involvement of teachers in mobilizing resources for infrastructure development. A few of them (18.5%) however disagreed to the latter. Majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development.

The PTA members highlighted that there were a number of policies which had been put in place which governed the issue of infrastructure development in schools included the procurement policy and health and sanitation policy. However, one of the head teachers went on ahead to report that:

The procurement policy has been posing a challenge in the infrastructure development process in the school. Due to the policy, the bureaucracy is a bit tight and thus it takes a long time to procure materials which are required to facilitate infrastructure development.

In supporting the responses of the PTA, the members of the BoM were also in agreement that government policies did have an effect on infrastructure development process in public schools. They reported that the policies were not clear on the different roles that various stakeholders were supposed to play in the development process. Moreover, the policies were reported as to delay the procurement of materials which were required to facilitate the construction of infrastructure in the school.

In response to the effects of policies on infrastructure development in public primary schools, the DQASO officer reported that:

There are a number of policies which have been set aside to govern infrastructure development in schools. These policies include the safety standards policies. These policies address on how different infrastructures may be used in schools and safety maintained. Moreover, the available policies to some extent have influenced infrastructure development in schools through resource mobilization. For instance, procurement policies are very stringent and this makes the school representatives not able to afford various materials for infrastructural development.

Further, the AEO reported that:

There are policies addressing on infrastructure development in public primary schools. The government policies affect infrastructure development in that they

ensure proper use and give guidelines on how resources may be mobilized to facilitate infrastructure development in the public schools.

According to an observation made by the DEO, the main policies affecting infrastructure development in schools is the procurement policies and construction services. These policies are rigid and in most cases are bureaucratic in nature hence taking too long to process. Moreover, the policies tend to provide guidelines for proper usage of infrastructure.

In this section, the findings have shown that indeed policies do have an influence on infrastructure development. Some of the policies which have been pointed out in the study include procurement policies and health and safety policies. These policies have been pointed out as to determine how schools source for funds as well as get materials to the school to aid in infrastructure development. In supporting these findings, an article by UNESCO (2005) showed that appropriate and sufficient building, child friendly, safe environment enhance child rights. Such environments in schools can be realized through the prevalence of health and safety needs policies in schools. Moreover, the Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoE, 2005). This emphasizes the importance of complying with Education Act (Cap 211) and Public Health Act (Cap 242). The manual discusses size and number of physical infrastructure for resistance and recommends the need for sufficiency.

According to these acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users. However, one may find that the quality of such infrastructures in the respective public schools is inadequate. Moreover, the available facilities are always in poor conditions.

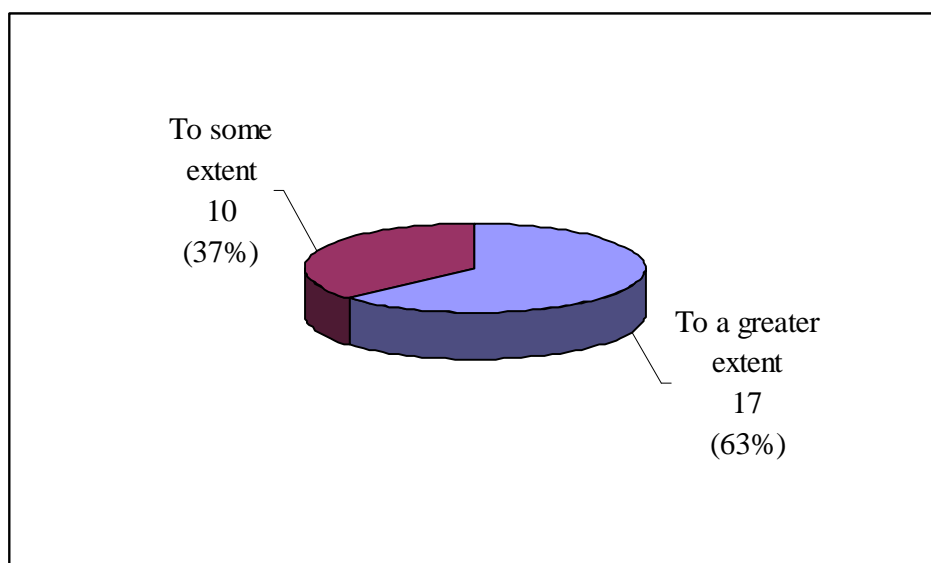
In conclusion, it may be reported that despite the prevalence of policies to aid in infrastructure development there are still issues which are hampering the effectiveness of these policies. Slowness in the procurement policies to the implementation process may raise eyebrows concerning the effectiveness of these policies. As such a recommendation can be given to address on the restructuring of policies to ensure their effectiveness in promoting infrastructure development in schools.

#### **4.7 Stakeholders' attitude and infrastructure development**

The fourth and last objective of the study was to examine how stakeholders' attitude affected infrastructure development in public primary schools. The head teachers were first asked to indicate whether they enjoyed being involved in infrastructure development in their respective schools. In this case almost all of them (96%) positively agreed that they enjoyed participating in infrastructure development process in their schools. Only one of the head teachers indicated that he did not

enjoy. Further, the head teachers were also asked to indicate the extent to which they enjoyed being involved in infrastructure development.

Figure 4.10 presents a summary of head teachers responses on the extent to which they enjoyed being involved in infrastructure development.



**Figure 4. 10: Distribution of head teachers on the extent to which they enjoy being involved in infrastructure development**

The data in figure 4.10 shows that there were those respondents who suggested that they enjoyed being involved in infrastructure development to a greater extent 17 (63%) where as others indicated to some extent 10 (37%).

Through the interview guides, the effects of stakeholders' attitude on infrastructure development were brought out clear. The PTA members for instance, indicated that attitude did have a great effect on the infrastructure development in schools. Most of them reported that some of the key stakeholders had a negative attitude and this

hindered them from being directly involved in the development process. One of the PTA members for instance reported that:

Some stakeholders have a negative attitude towards infrastructure development. Some of the members in the school tend to hold that infrastructure development is a responsibility of the government. As such, they do not contribute any resources or labour towards the development process.

Another PTA member further reported that “Some of the stakeholders have a negative attitude towards infrastructure development. They say that primary education is free hence they do not want to give money for buildings.” In summary, negative attitude among stakeholders led to inadequate involvement in infrastructure development, minimal provision of finances for infrastructure development and poor management of the already available infrastructure in the school.

In response to how stakeholders’ attitude affected infrastructure development, the AEO reported that:

The attitude of the stakeholders plays a major role in that they influence infrastructure development in the schools. In this case, many of the community members are of the perception that public school development is only for the government so they do not want to participate.

In further supporting the above statement by the AEO, the DQASO officer also reported that: “The attitude of the stakeholders affects their involvement in

infrastructural development differently. Positive attitude towards infrastructural development rises when there is full involvement of the members in the infrastructure development process.” On the other hand, the DEO reported that “most of the stakeholders have positive attitude however, financial problems at times makes them to develop coldness towards being involved in infrastructure development.”

Attitude has been found in this study as a major challenge on the involvement of stakeholders in infrastructure development. Most of the stakeholders are of the idea that development is for the government and thus they are not necessarily to be involved. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. The study found that attitude determined the extent to which members were motivated to use infrastructure as well as maintain it. Another study carried out by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary, conclusion and recommendations for this study.

#### **5.2 Summary of the study**

The main purpose of this study was to investigate the factors affecting infrastructure development in primary schools in Kathonzwi Division, Makueni County. The study was guided by the following research objectives: To establish how adequacy of funds affect infrastructure development in primary schools in Kathonzwi Division, to determine how community involvement influence infrastructure development in primary schools in Kathonzwi Division, to examine the effects of policies and regulations on infrastructure development in primary schools in Kathonzwi Division and to examine how attitude affects infrastructure development in primary schools in Kathonzwi Division.

A descriptive survey research design was used in this study. This design was used because it enables investigation into the subject under study. The sample for this study consisted of all the head teachers (27), Board of Management (27) and PTA Chairpersons (27), DEO (1), DQASO (1) and AEO (1). In total, the sample size for this study was eighty four (84). The head teachers, BoM and PTA chair persons were arrived at through census sampling method whereas the DEO, DQASO and AEO

were purposively selected to participate in the study. The data collection instruments used in the study included questionnaires for Head Teachers and interview guide for the B.O.M. and P.T.A chairpersons, AEO, DQASO and DEO and observation checklist.

The collected data was analyzed using descriptive statistics, employing both quantitative and qualitative approach. Data from questionnaires were purely analyzed quantitatively and presented in frequencies and percentages while data from interview guide was analyzed qualitatively. The study used SPSS (Statistical Package for Social Sciences) to aid in data analysis process. From the analysis, the following findings were made:

There are those schools in the district which have infrastructures that are in a poor state. One of the leading infrastructures that are in poor conditions in the schools is the kitchen, followed by toilets, water points/tanks and school furniture respectively. The key methods used to raise money for infrastructure development in schools include parents' contribution, government allocation and CDF funds.

For classroom infrastructure, majority of the head teachers (66.7%) indicated that the funds came from the fees, CDF funds and donors. Major sources of funds for school furniture include parents' contributions (66.7%). Parents' contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in

schools. An overwhelming majority of the head teachers (93%) indicated that the funds provided for infrastructure development were not adequate.

The PTA, BoM members and AEO, DQASO and DEO reported that the key sources of funds for infrastructure development include parents, CDF funds, government allocations and MoEST. Role of community members in infrastructure development include providing labour materials, repairing and maintenance, provision of finances and monitoring projects. Poverty, level of education and awareness and misplaced priorities affected the involvement of community members in infrastructure development.

Majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development. Majority of the head teachers (85.2%) indicated that they were aware of the policies put in place by the government on infrastructure development in public schools.

Attitude affects the extent to which stakeholders are involved in the infrastructural development. Most of the stakeholders such as parents have a negative attitude towards involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not them.

### **5.3 Conclusion**

From the analysis and summary of the study, there are a number of conclusions which can be made. First and foremost, it may be concluded that the quality of infrastructure among quite a number of public primary schools in Kathonzweni division is in poor state. This puts a reason for recommendations to be put in place to address the deteriorating conditions of infrastructure in the schools.

In terms of funds, it is concluded that the major sources of funds for infrastructure development in schools include parents, CDF funds, government allocations and donors. However, these funds are not adequate and thus schools are not in a position to meet the full cost of developing infrastructure in the schools. Thus, it may be concluded that inadequacy of funds affect infrastructure development in public primary schools in Kathonzweni division to a greater extent.

Policies and regulations have also been noted as a factor that affects infrastructure development in schools. Tight policies such as those for procurement have been noted as to delay the process of obtaining materials to be involved in the infrastructure development process. Moreover, the policies do not show different roles that different stakeholders should play in the development of infrastructure in schools. As such, it is concluded that policies and regulations affect infrastructure development in schools to a greater extent.

The involvement of the community members is critical to the success of infrastructure development in schools. However, there are a number of issues which arise that affect their involvement in the infrastructure development process. Poverty and political interferences affect the way community members participate in infrastructure development. However, the roles they play include providing finances, labour and materials and carrying out repair services.

The attitude can be concluded a determinant that affects stakeholders' involvement in the infrastructure development process. For instance, most of them hold the idea that FPE is free hence it remains the responsibility of the government to take care of the infrastructure in schools. Moreover, due to negative attitude some parents do not want to contribute finances or labor to support the development of infrastructure. This affects infrastructure development in the school to a greater extent.

#### **5.4 Recommendations**

That the Ministry of Education should start negotiations with County governments to pursue the possibility of counties getting more actively involved in funding school infrastructure projects. This will be a big boost to upgrading the dilapidated structures in many schools as noted in the case of public primary schools in Kathonzweni division. This will also ease pressure on FPE fund which can then be channeled by the head teachers towards improving learning through the purchase of teaching and learning essentials in the classroom. Infrastructure is currently

competing with for scarce resources with other learning requirements hence the financial constraint is piling pressure on head teachers.

The MoEST should use the local education officers to carry out awareness sessions with parents and key stakeholders to sensitize them on way that they can support their schools by developing the required infrastructure through provision of all possible resources including giving in kind. There is need for more stakeholders to be involved in the infrastructure development process in schools. This will help to ensure full community involvement in school infrastructure development.

MoEST should strengthen the training for head teachers on resource mobilization for infrastructure development build their capacity on infrastructure development and management in the schools. These trainings may be carried out in the course of holidays or within the school periods so as to provide an ample time for head teachers to exercise what they learn.

It is also recommended that as far as possible, there is need for more money to be allocated by the government to support infrastructure development in public primary school. This is because from the head teachers' responses on adequacy of funds, it was clear the funds currently allocated by the government are not sufficient for developing school infrastructure. There is also need for the government to create time to facilitate the revision of the policies so as to provide clear guidelines in infrastructure development as well as avoiding the delays which are experienced in the procurement process of materials for infrastructure development.

The school head teachers have a role that they need to play in mobilizing the community members and parents on the importance of their involvement in the infrastructure development process. Through general meetings in the schools, the head teachers can inform the parents how their involvement in the school creates a lot of opportunities in facilitating infrastructure development processes.

The school head teachers and the chairpersons of both the PTA and BoG need to put their heads together and strategize on the mechanisms that they may employ in mobilizing resources for infrastructure development in schools. This may be done through harambee, fundraising functions, developing of infrastructural funding proposals among many others.

The community members have a sole responsibility that they need to play in promoting infrastructure development in schools. As such, they need to be encouraged and motivated by being informed through open air campaigns that their support and involvement in the construction of infrastructure in schools is highly recognized and appreciated. More avenues need to be created which directly involves the participation of community members in the development of physical infrastructure in the schools.

#### **5.5. Suggestions for further research**

1. This study focused on factors influencing infrastructure development in public primary schools, but did not look at parents' occupation or economic

activities and levels of education. A study can be done on the influence of parents' occupation /economic activities and their levels of education on school infrastructure development.

2. This study was limited to Kathonzweni Division in Makueni County. Other studies on factors influencing school infrastructure development should be done in other parts of Kenya to look at other factors and compare the findings.

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## **APPENDICES**

### **APPENDIX I**

#### **LETTER OF INTRODUCTION**

Josiah M. Ojwang  
University of Nairobi  
Department of Educational Administration and Planning  
P.O. Box 30197 NAIROBI

The Head teacher,

Dear Sir/Madam,

#### **RE: PARTICIPATION IN RESEARCH**

I am a post graduate student at the University of Nairobi pursuing a master's degree in Education. I am conducting a research on the topic "**Factors influencing infrastructure development in public primary schools in Kathonzweni division, Kenya.**"

This study is going to benefit the principals and teachers to understand the relevance of infrastructural development and the key approaches to resource mobilization in public primary schools.

I hereby request you to assist me with necessary information to help me obtain accurate findings. Kindly allow me to carry out this research in your school.

Thank you.

Yours faithfully,

Josiah M. Ojwang.

## APPENDIX II

### QUESTIONNAIRE FOR HEAD TEACHERS

Please read the questions below and kindly give the appropriate response by ticking (✓) or writing in the spaces provided .Please note that this information is purely for academic purpose and your identity will be held in utmost confidentiality.

#### Section A: Personal Information

1. Name of school: .....

2. What is your highest academic level?

- |            |     |                          |     |
|------------|-----|--------------------------|-----|
| a) P1      | ( ) | d) Degree                | ( ) |
| b) ATS     | ( ) | e) Master's Degree       | ( ) |
| c) Diploma | ( ) | f) Other (specify) ..... |     |

3. How many years have you been a head teacher in this school?

- |                  |     |                   |     |
|------------------|-----|-------------------|-----|
| a) Below 2 years | ( ) | c) 5-10 years     | ( ) |
| b) 2-5 years     | ( ) | d) Above 10 years | ( ) |

4. What is the number of pupils attending the school? .....

6. What is the status of the infrastructure in your school?

Physical Infrastructure	Are they Comfortable	Number	Status (very good, good, bad, very bad, n/a)
Classrooms			
Furniture			

Toilets			
Kitchen			
Water Point / Tank			
Other (specify):			

- a) When your furniture break down who repairs them? .....
- b) Are they repaired in time? .....
- c) Do the pupils seem overcrowded in class? .....
- d) Do you face any problems with your toilets? .....
- If yes list them: .....

**Section B: Availability of Funds for Infrastructure Development**

7. Where have your sourced funds to put up the following infrastructure?

<b>Physical Infrastructure</b>	<b>Source [CDF, LATF, KESSP, fees, donors, etc.]</b>	<b>% funded</b>
Classrooms		
Furniture		
Toilets		
Kitchen		
Water Point / Tank		
Other (specify):		

8. Do these provide sufficient funds for physical infrastructure development?

---

9. To what extent does the availability of funds influence resource mobilization for infrastructure development in your school?

- a) To a greater extent [ ]                      c) Not at all [ ]  
b) To some extent [ ]                              d) Not sure [ ]

**Section C: Role of Community in Infrastructure development**

10. What are some of the roles that the community plays in infrastructure development in your school?

---

11. To what extent has the community members in your area contributed towards the development of infrastructure in your school?

---

**Section D: Policies and Regulation on Infrastructure development**

12. Tick all the methods that you use to raise money to develop school infrastructure.

- (a) Government allocation    (b) CDF funds                      (c) Religious organizations  
(d) School Fees                      (e) Parents contribution                      (f) Other (specify)\_\_\_\_\_

13. Are there any policies which you are aware of that aid in infrastructure development in your school? \_\_\_\_\_

14. Does the school have a Resource Mobilization Plan or policies for infrastructural development? \_\_\_\_\_

15. Do the available policies encourage the involvement of teachers in choosing or suggesting what methods can be used to mobilize funds for school infrastructure development? \_\_\_\_\_



**APPENDIX III**

**INTERVIEW GUIDE FOR PTA AND BOM CHAIRPERSONS**

1. Date \_\_\_\_\_
2. Center \_\_\_\_\_  
Position PTA official ( ) BOM official ( )
3. What is the role of the body you officiate with regards to infrastructure development? \_\_\_\_\_
4. Does the school have a resource mobilization plan?  
\_\_\_\_\_
5. How does the school source funds for infrastructure development?  
\_\_\_\_\_
6. What are the main sources of funds for infrastructure development in the school?  
\_\_\_\_\_
7. What are the community concerns about the school's infrastructure?  
\_\_\_\_\_
8. Are there any government policies which influence or promote resource mobilization for infrastructure development in public primary schools? Yes/ No. explain \_\_\_\_\_
9. How does stakeholders' attitude affect the infrastructure development in schools?  
\_\_\_\_\_
10. In your view, what can be done to improve resource mobilization for infrastructure development?  
\_\_\_\_\_

*Thank you*

## APPENDIX IV

### INTERVIEW GUIDE FOR DEO, DQASO AND AEO

These interviews will be conducted by the researcher and will target the DEO, DQASO and AEO in charge of the division to get their views on resource mobilization for school infrastructure development.

1. What are the main sources of funding for infrastructure development in public primary schools in Kathonzwani district?
- 

2. What factors make the sources mentioned above prevalent choose as the main ways of raising money for funding school infrastructure?
- 

3. Do you organize/prepare training sessions for primary school head teachers on management/resource mobilization?

4. Are there any policies addressing on infrastructure development in public primary schools? Yes/ No. if yes, indicate these policies.
- 

5. How do governmental policies affect resource mobilization for infrastructure development in public primary schools?
-

6. In your experience, what are the challenges faced by head teachers in  
Kathonzwi as they raise funds to develop school infrastructure

---

7. How does stakeholders' attitude affect the infrastructure development in schools?

---

8. Please comment on any other alternative approaches or sources that can be used by head  
teachers to mobilize funds for developing school infrastructure in Kathonzwi

---

*Thank you*

## APPENDIX V

### OBSERVATION CHECK LIST

<b>Physical Infrastructure</b>	<b>Number</b>	<b>Status (very good, good, bad, very bad, not available)</b>	<b>Adequacy(Adequate, not adequate, not available)</b>
Classrooms			
Play grounds			
Students desks			
Teachers' tables			
Teachers' chairs			
Blackboards			
Toilets			
Kitchen			
Water Point / Tank			
Other (specify):			

## APPENDIX VI

### RESEARCH AUTHORITY LETTER

#### MINISTRY OF EDUCATION SCIENCE AND TECHNOLOGY

Office of the Sub-County Director of Education, Kathonzwani Sub-County

#### State Department of Education

Telegrams: "Kathoedu"  
Telephone:  
E-mail: deokathonzwani@gmail.com  
When replying please quote



SUB COUNTY EDUCATION OFFICE,  
KATHONZWANI SUB COUNTY,  
P.O. BOX 103-90302  
**KATHONZWANI.**

19<sup>th</sup> June, 2015

**REF: ED/KZN/ED 5/22 VOL I/20**

TO  
ALL HEADTEACHERS – PRIMARY SCHOOLS  
KATHONZWANI DIVISION  
**KATHONZWANI SUB COUNTY**

#### **RE: RESEARCH AUTHORITY – JOSIAH M. OJWANG**

The above mentioned is a registered Post graduate student at the University Of Nairobi- Kenya. He intends to undertake a research on ***Factors influencing infrastructure development in public primary schools in Kathonzwani division, Kathonzwani sub county in Makueni county, Kenya.***

Kindly accord him all necessary support he requires.

Yours faithfully,

ASSISTANT DIRECTOR OF EDUCATION  
KATHONZWANI SUB-COUNTY  
P. O. Box 103-90302  
KATHONZWANI

  
SIMON NGUMBI  
FOR: SUB COUNTY DIRECTOR OF EDUCATION  
**KATHONZWANI SUB COUNTY**

ISO 9001:2008 CERTIFIED



## APPENDIX VII

### LETTER OF INTRODUCTION



UNIVERSITY OF NAIROBI  
COLLEGE OF EDUCATION AND EXTERNAL STUDIES  
SCHOOL OF EDUCATION  
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING

Telegram: "CEES"  
Telephone: 020-2701902  
dept-edadmin@uonbi.ac.ke

P.O. BOX 30197 NAIROBI  
OR P.O. BOX 92  
KIKUYU

16<sup>th</sup> June, 2015

Our Ref: UON/CEES/SOE/A&P/1/4

#### TO WHOM IT MAY CONCERN

Dear Sir/Madam

SUBJECT: OJWANG JOSIAH MESHACK - REG NO. E55/75331/2012

This is to certify that **Ojwang Josiah Meshack** is our Master of Education student in the Department of Educational Administration and Planning at the University of Nairobi. He has successfully completed his course work and is summarizing his research on "*Factors Influencing Infrastructure Development in Public Primary Schools in Kathonzwani Division, Makeni County, Kenya*".

Any assistance accorded to him will be highly appreciated.

Yours faithfully,

*Jw*

**DR. GRACE NYAGAH**  
CHAIRMAN  
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING



GN/nd

## APPENDIX VIII

### AUTHORIZATION LETTER



#### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 310571, 2219420  
Fax: +254-20-318245, 318249  
Email: secretary@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref: No.

Date:

**2<sup>nd</sup> July, 2015**

**NACOSTI/P/15/5833/6787**

Josiah Meshack Ojwang  
University of Nairobi  
P.O. Box 30197-00100  
**NAIROBI.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Factors influencing infrastructure development in public primary schools in Kathonzweni Division, Makueni County, Kenya*," I am pleased to inform you that you have been authorized to undertake research in **Makueni County** for a period ending **31<sup>st</sup> July, 2015**.

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

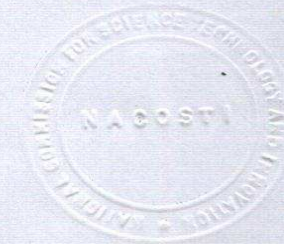
On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

  
**SAID HUSSEIN**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Makueni County.

The County Director of Education  
Makueni County.

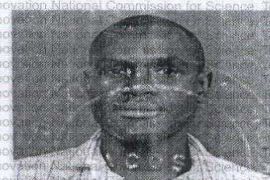


## APPENDIX IX

### RESEARCH CLEARANCE PERMIT

**THIS IS TO CERTIFY THAT:**  
**MR. JOSIAH MESHACK OJWANG**  
**of UNIVERSITY OF NAIROBI, 34606-100**  
**Nairobi, has been permitted to conduct**  
**research in Makueni County**  
**on the topic: FACTORS INFLUENCING**  
**INFRASTRUCTURE DEVELOPMENT IN**  
**PUBLIC PRIMARY SCHOOLS IN**  
**KATHONZWEZI DIVISION, MAKUENI**  
**COUNTY, KENYA**  
**for the period ending:**  
**31st July, 2015**


**Permit No : NACOSTI/P/15/5833/6787**  
**Date Of Issue : 2nd July, 2015**  
**Fee Received :Ksh 1000**



**Applicant's Signature** *Josiah Meshack Ojwang*  
**Director General** *Walter O. Ochieng*  
**National Commission for Science, Technology and 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 that 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.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant 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.**



**REPUBLIC OF KENYA**  
**NACOSTI**  
**National Commission for Science, Technology and Innovation**

**Serial No. A 5636**  
**CONDITIONS: see back page**

**FACTORS INFLUENCING INFRASTRUCTURE DEVELOPMENT IN  
PUBLIC PRIMARY SCHOOLS IN KATHONZWENI DIVISION, MAKUENI  
COUNTY, KENYA**

**Ojwang Josiah Meshack**

**A Project Report Submitted in Partial Fulfillment of the Requirements for the  
Degree of Master of Education in Educational Administration**

**University of Nairobi**

**2015**

## **DECLARATION**

This project report is my original work and has not been submitted for the award of a degree in any other university.

---

Ojwang Josiah Meshack

E55/75331/2012

This project report has been submitted for examination with our approval as University Supervisors

---

Dr. Ursulla A. Okoth

Senior Lecturer

Department of Educational Administration and Planning

University of Nairobi

---

Prof. Genevieve Wanjala

Department of Educational Administration and Planning

University of Nairobi

## **DEDICATION**

This work is dedicated to my wife Edna Ojwang and my children Liz Ojwang, Dorraine Ojwang and Blessing Ojwang.

## **ACKNOWLEDGMENT**

I very humbly give gratitude to my creator, the Almighty God for giving me life, intellect, resources and ability to carry out this project. I also give special thanks to my supervisors, Dr. Ursulla Okoth and Prof. Genevieve Wanjala for their support, patience and intellectual input which have been instrumental in making this work see the light of day. I also thank all the lecturers in the Department of Educational Administration and Planning of the University of Nairobi for their diligence in leading us through this course.

I also thank my classmates for their encouragement as we studied together and gave support to each other as necessary. I also take this chance to thank my research assistant Benjamin Musau, who was very supportive and demonstrated a lot of dynamism during the data collection process. Also acknowledged in this study are the respondents including head teachers, Parent Teacher Association (PTA) and Board of Management (BOM) chair persons, District Education Officer (DEO), District Quality Assurance Officer (DQASO) and Area Education Officer (AEO) who were supportive all through the data collection process. Finally, I give special accolades to my dear wife Edna Ojwang who supported and encouraged me in all ways to complete this course.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AEO</b>	Area Education Officer
<b>ASAL</b>	Arid and Semi-Arid Lands
<b>BOM</b>	Board of Management
<b>DEO</b>	District Education Officer
<b>DQASO</b>	District Quality Assurance and Standards Officer
<b>EFA</b>	Education for All
<b>KESSP</b>	Kenya Education Sector Support Programme
<b>MDG</b>	Millennium Development Goal
<b>MOE</b>	Ministry of Education
<b>MoEST</b>	Ministry of Education, Science and Technology
<b>MTP</b>	Medium-Term Plan
<b>NGO</b>	Non – Governmental Organization
<b>PA</b>	Parents’ Association
<b>PEDP</b>	Primary Education Development Plan
<b>PPS</b>	Presidential Press Service
<b>PTA</b>	Parents’ Teachers Association
<b>SMC</b>	School Management Committee
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNICEF</b>	United Nations Children's Fund
<b>UPE</b>	Universal Primary Education

## **ABSTRACT**

The main purpose of this study was to investigate the factors influencing infrastructure development in primary schools in Kathonzwani Division, Makueni County. The study further examined how adequacy of funds, community, policies and regulations and stakeholder attitude affected infrastructure development in primary schools in Kathonzwani Division. A descriptive survey research design was used in this study. The sample consisted of 27 head teachers, 27 Board of Management and 27 PTA Chairpersons, DEO (1), DQASO (1) and AEO (1). In total, the sample size was eighty four (84). Both census and purposive sampling procedures were used to arrive at the sample of respondents. Instruments used included questionnaires for Head Teachers and interview guide for the B.O.M. and P.T.A chairpersons, AEO, DQASO and DEO and observation checklist. Data was analyzed using descriptive statistics, employing both quantitative (questionnaires) and qualitative (interview guide) approach. From the analysis, the following findings were made: The methods used to raise money for infrastructure development in schools include parents' contribution, government allocation and CDF funds. The role of community members in infrastructure development include providing labor materials, repairing and maintenance, provision of finances and monitoring projects. However, these roles are affected by poverty, level of education and awareness and misplaced priorities. Tight policies such as those for procurement have been noted as to delay the process of obtaining materials to be involved in the infrastructure development process. Moreover, the policies do not show different roles that different stakeholders should play in the development of infrastructure in schools. Most of the stakeholders have a negative attitude towards involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not them. The following recommendations are given: Clear roles of community, government and other partners to be developed by the MoE, more stakeholders to be involved in the infrastructure development process in schools, awareness creation to be made on the need for full community involvement in infrastructure development. There is need for more money to be allocated by the government to support infrastructure development. There is also need for policy issues to be revised so as to guide clear guidelines in infrastructure development as well as avoiding the delays which are experienced in the procurement process of materials for infrastructure development.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the study**

Globally, educating citizens is a key responsibility of the government and a main factor in development. Indeed education is seen as the principal institutional mechanism for the development of human capital (Nsubuga, 2003). Education is actually an investment for a country; hence there is a positive correlation between education and economic development (Rhodes & Bell, 2004). The United Nations Declaration on Human Rights (1948) recognizes education as a human right and points out that it shall be free. This is further buttressed by the world conferences on Education for All (EFA) in Jomtien (1990) and Dakar (2000) which emphasized the principles that every child has a right to education. The millennium development goals (MDGs) lay considerable emphasis on education in terms of achieving Universal Primary Education (UPE). Since all have a right to education, the issue of access has necessitated expansion of existing schools and putting up new physical facilities in schools. Setting up learning structures is therefore a matter of priority to government's world over.

In South Africa, while some schools have excellent infrastructure, others lack basic services like water and sanitation. It is noted that schools in what were formerly black areas in the apartheid period generally suffer poor infrastructure and there is

backlog of physical school development (Gibberd, 2007). Gibberd (2007) further denotes that South Africa is struggling with prioritizing which schools should be given more emphasis in terms of allocating resources to ensure that the overall performance of school infrastructure is improved.

Another country in Africa which has been on the map concerning the infrastructure development issues in schools is Nigeria. The capacities of schools in Nigeria are not in a position to fully handle the ever increasing enrollment of learners. Issues such as inadequacy of funding, infrastructure and lack of manpower or community involvement have been raised as to affect the quality of education in the schools (Solutions 4 Africa, 2015). Moreover, various researchers (Olagunju, 2011; Zubairu, 2010; Isyaku, 2003) have also pointed that lack of proper maintenance due to insufficient policies have contributed to the prevalence of poor infrastructure in most of the secondary schools in Nigeria. To address the issue of infrastructure in schools, the government has tried to come up with some policies or initiatives to encourage infrastructural development so as to enhance the overall education process in schools.

The issue of infrastructure among schools is also evident across various countries in East Africa. Countries such as Tanzania, Uganda, Burundi and Rwanda have been highlighted by various researchers concerning the crumbling conditions of infrastructure in schools. This has also been attributed as to influence the incorporation of various developmental programs and curriculums in the school

inclusive of ICT (World Bank, 2007). Lack of investments or funds, attitude, policy related issues among many others have been raised as to contribute to the crumbling conditions of infrastructure in the schools.

In Kenya, the state of infrastructure in many schools still remains wanting. It may be observed that the state of school infrastructure in Kenya is not anywhere near adequate as thousands of pupils learn in dilapidated classrooms or no classrooms at all and schools lack basic facilities like toilets (Daily Nation, 19 March 2014). Indeed even before Free Primary Education (FPE) was introduced, schools barely had enough infrastructure. With the advent of FPE, the available school facilities simply became overstretched since the issue of infrastructure was glossed over as more children trooped to schools. Children began to learn under trees and in makeshift classrooms, whereas sanitary facilities such as toilets and water supply became overstretched. For instance, The United Nations Children's Fund (UNICEF) (2010) found that on average, 38 male pupils share a toilet and 32 female share a toilet in Kenya's public primary schools. This does not meet even the government's own recommendation of one toilet for 25 girls and one for 30 boys.

Kenya's development blueprint, Vision 2030, also recognizes the need for proper priority towards school physical infrastructure. In its medium-term plan (MTP) for 2008-2010, education was identified as one of the eight sectors that would contribute to the national development under vision 2030. One of the identified flagship programmes was attainment of education for all by 2015. MTP emphasized that the

government would develop an infrastructure programme to rehabilitate schools (Vision, 2030). Apart from these, there is need for accountability to make the infrastructure funding effective. In January, 2010, the Presidential Press Service (PPS) reported that the then president of Kenya, Mwai Kibaki asked parents to demand accountability for the funds given or distributed to schools. The president noted that the funds were meant for development of local schools and creation of an environment conducive for learning.

School infrastructure to a large extent is instrumental in achievement of education goals. Classrooms, offices, teachers room/staff room, play fields and toilets are all basic requirements essential for the smooth functioning of the school. Head teachers and School Management Committees (SMC) are tasked with developing and maintaining infrastructure in their schools. Raising funds for infrastructure development is therefore a key management function of the school head teacher. The head teacher has a duty to ensure that school infrastructure facilities are available and kept in tidy state since this is an important part of the provision of education (Mbiti, 2007).

Public primary schools in Kathonzwani division, just like in other parts of Kenya, are expected to have the entire recommended infrastructure to facilitate proper learning and for the comfort of pupils and teachers. While it is the desire of the head teachers to ensure that their schools are adequately equipped, many schools are inadequately equipped in terms of infrastructure development. There are children learning in

crowded classrooms, classrooms in many schools are dilapidated and poorly maintained and some of the structures are improvised for use as classrooms, offices or toilets.

The Kathonzweni District Education Officer Report (2012) captured the wanting state of infrastructure in the district and narrowed down to the ability of head teachers to raise funds for school infrastructure. The report indicates that many head teachers had tried to mobilize school funds for infrastructure development but complained of many difficulties such as competition for the available donors, priority to food and learning materials such as books, lack of cooperation from parents or even Boards of Management. The DEO report also explains that head teachers also complained that some parents and community members were unwilling to contribute to school infrastructure because they understand that primary education is free, thus they do not need to pay anything in school.

Infrastructural issues have also been associated poor quality of education being provided in the public primary schools. Parents and teachers among many other stakeholders have been trying to come up with strategies to improve the quality of education provided in the public schools. Some have been in the forefront in coming up with approaches targeted towards improving the school conditions and especially the quality of infrastructure. A question that however remains among many individuals and researchers is how can resources be mobilized in schools for infrastructural development practices? And if there are resource mobilization

practices, what then are the factors affecting infrastructural development in primary schools? All these questions form a key component of this study. As such, the researcher examined the factors which influenced infrastructure development. Some of the variables which the study examined include the role of the community, availability of funds as well as policies.

## **1.2 Statement of the problem**

Physical infrastructure in public primary schools in Kathonzweni division has been in a bad state. One may observe that there are inadequate facilities such as classrooms, sanitation facilities and poor kitchen conditions among many others. Moreover, the playgrounds in most of the schools are in a poor state and thus pose a challenge to the security of the children while in the playground. The capacity of school facilities cannot sustain the increased enrollment of the pupils which has largely been influenced by the introduction of Free Primary Education (FPE). Head teachers in the area have been trying their level best in promoting infrastructure development to schools but all this has been in vain. As such, this has raised question among various stakeholders in the educational sector on what exactly are the challenges which are affecting infrastructure development in public primary schools. This question formed the general objective and purpose of this study.

On the other hand, there are a number of studies (Gaduh, 2012; Ayogu, 2007; MOE, 2005; Crampton and Thompson, 2003) which have been carried out with respect to resource mobilization and infrastructure development. For instance, the study by

Ministry of Education (MoE) (2005) emphasized on planning, accountability for resource use and community participation through empowerment in resource mobilization. However, most of these studies have had their own limitations which vary from geographical coverage to the methodological approaches. This study on the other hand, investigated factors affecting infrastructure development in primary schools in Kenya. Hence, there was need for this study to be carried out to investigate the factors affecting infrastructure development in primary schools in Kathonzwi Division, Makueni County, Kenya.

### **1.3 Purpose of the study**

The purpose of this study was to investigate the factors affecting infrastructure development in primary schools in Kathonzwi Division, Makueni County.

### **1.4 Research objectives**

This study was guided by the following research objectives:

- i. To establish the extent to which adequacy of funds influence infrastructure development in primary schools in Kathonzwi Division
- ii. To assess the extent to which policies and regulations influence infrastructure development in primary schools in Kathonzwi Division.
- iii. To determine how community involvement influence infrastructure development in primary schools in Kathonzwi Division.
- iv. To examine how parent attitude influence infrastructure development in primary schools in Kathonzwi Division.

### **1.5 Research questions**

The following research questions were used to guide the study:

- i. How does the adequacy of funds affect infrastructure development in primary schools in Kathonzwani Division?
- ii. What are the effects of policies and regulations on infrastructure development in primary schools in Kathonzwani Division?
- iii. How does the community involvement affect infrastructure development in public primary schools in Kathonzwani Division?
- iv. How does parent attitude influence infrastructure development in primary schools in Kathonzwani Division?

### **1.6 Significance of the study**

This study is hoped to be of significance to various stakeholders in the educational sector. These stakeholders include pupils, head teachers, parents, the government, community members and policy makers. Pupils are hoped to be the key beneficiaries of this study. Through the recommendations, they will be able to have a good and conducive learning environment that comprises of well furnished and safe infrastructure to use. Moreover, they will also be reinforced on the roles that they can play to facilitate the maintenance of the available infrastructure in the school.

The head teachers, PTA and BOG members are also expected to benefit from the findings and recommendations of this study. They will first be enlightened on the various factors such as adequacy of funds, policies and regulations, community

involvement and parents' attitude affect infrastructure development in the school. Moreover, through the recommendations, they will be provided with techniques that they may use to overcome these challenges and thus facilitate effective infrastructure development in the school. The community members will also benefit from this study. They will be in a position to learn how their involvement affects the development of infrastructure in schools. Hence, they will be encouraged to put more efforts in supporting head teachers, teachers, parents and the government in general in facilitating infrastructure development in schools.

The government through the Ministry of Education Science and Technology (MoEST) are also hoped to benefit from this study. Establishing the major challenges facing infrastructure development, MoEST is expected to support the head teachers to improve the quality and quantity of infrastructure in schools and thereby improving the learning environment. Through this study, the assessment results can be guideposts that would help policy makers to restructure the current policies as well as develop new policies which may help in supporting infrastructure development in schools. Moreover, the policies can also be restructured so as to create an easy flow in the procurement processes of materials required for infrastructure development in the schools.

This study is also expected to contribute to general knowledge on the areas of infrastructure development in schools in the third world countries. The research will provide adequate, relevant and more current information on how community

involvement, policies and regulations, parents' attitude affect infrastructure development in public schools in Kenya.

### **1.7 Limitations of the study**

According to Kombo (2006), limitations refer to the hurdles a researcher anticipates over which they have no control. Kathonzwani Division has schools which are far apart and many are not served by any form of public transport due to the poor state of the roads. In some cases, reaching school may require hiring of motorcycle transport and it may therefore take long to reach many schools quickly. This was tackled by planning well and arranging for advance transport as may be necessary. Another limitation of this study is that it was only carried out in one district. Thus the information obtained may differ from other districts in the country.

### **1.8 Delimitations of the study**

Delimitations are the boundaries of the study in terms of geographical coverage (Oso and Onen, 2009). The study was conducted in public primary schools in Kathonzwani Division, Makueni County, Kenya. The respondents were head teachers from the public secondary schools in Kathonzwani Division, BOM and PTA chairpersons, AEO, DQASO and DEO officials. Head teachers from private schools in the division did not form part of the respondents because their management policies differ from one school to another and their funding methods are also not similar to those of public schools.

## **1.9 Basic assumptions of the study**

The study was carried on the assumption that:

- i) Head teachers were capable of identifying their roles in infrastructure development including pointing out challenges and expressing their opinions on alternative approaches of raising funds.
- ii) Respondents would be willing to participate in the study and engage in giving honest responses to the questions that the researcher seeks to answer.

## **1.10 Definition of key terms**

**Adequacy of funds** refers to the availability of financial resources required by public primary schools for infrastructure development.

**Community involvement** refers to the extent to which the members of the society willingly engage in infrastructure development processes in public primary schools.

**Challenge** refers to any difficulty experienced by head teachers as they raise funds for developing school infrastructure

**Influence** refers to what prompts the head teacher to seek funds mobilization for infrastructure development in their schools

**Infrastructure** refers to the physical facilities in the school such as classrooms, teachers' houses, staffroom, offices, water systems, kitchen and toilets.

**Parents' attitude** refers to parents' perception of their responsibilities towards infrastructure development in public primary schools.

**Policies and regulations** refer to the mechanisms and principles put in place to aid in the infrastructural development processes in public primary schools.

**Public primary school** refers to a school that is maintained at public expense for the education of the children of a community or district and that constitutes a part of a system of free public education offered by the Government of Kenya, and guided by the national curriculum in offering instruction to pupils.

**Resource** refers to a source of supply, support, or aid, especially one that can be readily drawn upon when needed.

### **1.11 Organization of the study**

The study was organized into five chapters. Chapter one covered the background to the study, statement of the problem, purpose of the study, limitations of the study, delimitations of the study, objectives of the study, research questions, significance of the study, some assumptions of the study, definition of significant terms and organization of the study. Chapter two was concerned with literature review. It contained infrastructure development in schools, influence of funds on infrastructure development, influence of government policies on infrastructure development, community's involvement in infrastructure development, parents' attitude and infrastructure development, summary of literature review, theoretical framework, conceptual framework and. Chapter three discussed the methodology of this study. This presented the research design, the target population, sample size, sampling procedures, research instruments, validity of the instruments, data collection procedures, data analysis techniques and ethical considerations. Chapter four presented the analysis presentation and discussion. Chapter five covered the summary, conclusions and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents the related literature reviewed on the factors influencing resource mobilization for infrastructure development. The literature reviewed is obtained from online articles, books and journals among many others. The chapter is presented based on the research objectives.

#### **2.2 Infrastructure development in schools**

Infrastructure development continues to be an issue raised by various stakeholders not only in the economic sector any given country but also in the educational systems. With the increased enrollment, school administrations find it a challenge to provide enough facilities to cater for the educational needs of the pupils. It may be observed that in sub-Saharan Africa (inclusive of Kenya) and the poorest countries in Asia, the challenge of providing adequate primary education facilities is huge. To meet the Education for All target of providing universal access to primary education worldwide it has been estimated that up to 10 million classrooms need to be built at a cost of US\$72 billion (World Bank, 2003).

In sub-Saharan Africa alone it is estimated that up to US\$30 billion will be required to address the shortfall in provision of suitable and safe learning environments. Typically, classrooms are overcrowded, many buildings and other facilities are

inadequate, sites are poorly planned and there is little maintenance. This situation is not conducive to good teaching and learning (Bonner, Kalra, Leathes, Das & Wakeham, 2010). According to these observations, it is paramount for Kenyan government among various other stakeholders to put more efforts in ensuring that not only policies are designed to promote infrastructure development, but the who society and community at large are reinforced and motivated to take part in the infrastructure development process in schools.

Where there are limited resources it is important that they are they targeted efficiently and equitably. This is often not the case and facilities are not constructed in a way that effectively matches demand. Even where average pupil/classroom ratios are high, it is not uncommon to find schools where there are unused or underused facilities. In Guinea, as many as 16% of classrooms were recorded as unused in 2000 and in Madagascar the number was about 7% in 2005. This is because of a tendency to construct schools with a standard number of classrooms rather than with the number of classrooms required by the actual and planned enrolment. The provision of smaller schools in rural communities can result in more efficient use of resources, reduce traveling distances and increase access (Theunynck, 2003).

Infrastructure development in schools not only entails the construction of new facilities but it also includes repairs and maintenance of the already existing infrastructure. In most of the primary schools, no proper mechanisms have been set

to aid in infrastructure repair and maintenance. As such, old facilities continue to deteriorate and thus posing insecurity risks to the learners. It may be noted that investments in repairs and maintenance are very cost effective but have historically received little priority or attention from governments or development partners. The current deficit of classrooms is due in part to poor maintenance of the existing building stock. In order to obtain the maximum value for money from educational facilities it is essential that their lifecycle costs are minimized and that they remain serviceable throughout their life (Bonner, Kalra, Leathes, Das & Wakeham, 2010).

A study carried out by Lawther (2009) on the review of infrastructure development approaches in the Solomon Islands indicated that infrastructure development projects in schools were being faced by a number of issues. These included the quality of construction and design, timeliness of delivery, cost, coverage, community empowerment, implementation and future maintenance. Strong community support for schools and education was offset by policy implications due to “fee free” education; the under-utilization of existing infrastructure space and land issues regarding education infrastructure and communities’ dependence on foreign aid.

### **2.3 Influence of funds on infrastructure development**

Financing of education refers to the funding of school conditions and resources to meet quality standards, spending on education inputs to achieve learning goals, allocating adequate revenue flow to enhance performance and monitoring the budgeted resources for education. In 1974, the World Bank report on education

suggested a number of broadened sources of revenue for education beyond the limits of regular government budgets which included various methods by which those who received education could pay greater share of its cost (Sifuna, 1990). It is with these trends that the infrastructure was somehow neglected (Olembo, 1985). This state of affairs was to manifest greatly with the introduction of free primary education (FPE) in Kenya in 2003. At one-point three million new pupils entered into the country's primary schools overwhelming school infrastructure (UNICEF, 2005). The 2003 school facilities census estimated that, nationwide, there was a shortfall of 43,000 classrooms although was not clear what proportion of these are existing semi-permanent (MoEST, 2007).

Funding for physical infrastructure in primary school, has over the years been part of the overall school financing. Physical infrastructure funding will involve the funds or efforts expected on building, land, physical environment, furniture and black wall either in form of repair and maintenance, construction and infrastructure management. Primary school physical infrastructure funding has been a challenging undertaking especially due to scarcity of resources and capacity constraints (Elcher, 1989).

Funding for physical infrastructure is by communities, parents and government. Community funding is very effective in cases in which the community desires to make future sacrifices to satisfy the practical needs. External help should just be a supplement (Theunynck, 2003). One of the most significant external funding bodies

for education is the World Bank which in 1963 issued its first educational loan targeting infrastructure (World Bank, 1988).

Funding for school facilities in Africa was greatly emphasized at independence (Otiende, Wamahiu & Karugu, 1992). However the cost of providing it was found to be three times higher compared to the developed world. This led to self-help where parents became more responsible for capital investments in education (Bogonko, 1992). These trends led to infrastructure neglect. This was manifested greatly with the introduction of FPE in which the enrollment of pupils in school overwhelmed the infrastructure available. This study intends to investigate how funds and grants influence the mobilization of resources used for physical infrastructure development in public primary schools in Kathonzweni Division.

#### **2.4 Community involvement and infrastructure development in primary schools**

After independence, most African countries concentrated their attention on expansion of educational facilities to achieve access and equity (Otiende, Wamahiu & Karugu, 1992). In 1961, a joint conference organized by the UNESCO (United Nations Educational and Cultural Organization) and United Nations Economic Commission for Africa noted that the cost of producing any quality education was three times higher in developing countries than the developed. It was suggested that education cost could be reduced by for example, greater help in self-help building. Many African countries had experienced deficits in that; they had to implement the Addis Ababa conference. In 1960s communities, parents and local authorities were

principally responsible for capital investment in primary education throughout East Africa (Bogonko, 1992). The communities' contributions ranged from poles, thatch cash and labour. In many parts of the world especially the developing world, funding primary school education infrastructure has been largely dependent on local community. For instance in Burma, the Parents' Teachers Association (PTA) has a major input in financing education (Black & Scendlen, 1980).

A survey of 1972/73 by the Ministry of Education there revealed that the PTAs provided for 21.2% of the cost of building 63.8% of the cost of furniture and equipment, 63.4% repairs and 87.7% of general contingencies. In Malaysia, it is the parents associations (PAs). The role of the parents associations is primarily that of material support; for example, contributing to building of school halls, canteens and adding classes. Thinh (1991) observes that the PAs have come to play a central role in construction and maintenance of building and facilities in association with the local education councils. PAs persuade and encourage local production and trading establishments in building educational facilities. In Vietnam, most primary schools have been built by people through the PAs and the local educational councils. The association is also involved in the provision of desks, benches and in teaching aids (Thinh, 1991).

A close connection was found between the presence of religious organizations and the community action activities. This has been attributed to the religious motivated sentiments of altruism and philanthropy (Grier, 1997). Salomon and Anheier

postulated that Christianity and particularly Protestantism permit the flourishing of the community actions because of its emphasis on individualism and its strong independence from state control. Gaduh (2012) also found that different religions had different impacts on the rise of the community action depending on the weight they assigned to charitable acts in terms of time and resources, supporting individual action, commitment to institution building and their relationship with the country.

Ministry of Education (2009) comments that community contribution either in terms of financial resources depending on the economic level or in kind is required to support government and other pertinent contributions. Communities are expected to provide firewood, employ a cook, provide kitchen utensils, cooking water and monitor the utilization of the project's funds, as part of their contribution (MOE, 2009). This study will seek to find out the roles communities play in infrastructure development in primary schools in Kathonzweni Division.

## **2.5 Government policies and infrastructure development in primary schools**

Countries and any of its operations are governed by different regulations and policies put in place. The same also applied in the education sector. Through the ministry of education, the government has been able to set up policies which guide the way things are run in the various schools in the country. The status of infrastructure development in schools has also been captured within the government policies and regulations in the educational sector. It can however be observed that despite the prevalence of polices and regulations still the status of physical infrastructure in

some of the public primary schools may not be up to standards. This may be due to a number of issues such as vandalisms, corruption in the infrastructure development projects and various stakeholders not taking their responsibility seriously among many others.

There are various specifications which have been provided when it comes to physical infrastructure in schools. According to UNESCO (2005), appropriate and sufficient building, child friendly, safe environment enhance child rights. The Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoE, 2005). This emphasizes the importance of complying with Education Act (Cap 211) and Public Health Act (Cap 242). The manual discusses size and number of physical infrastructure for resistance and recommends the need for sufficiency. According to these acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users. However, one may find that the quality of such infrastructures in the respective public schools is inadequate. Moreover, the available facilities are always in poor conditions.

The government policies and regulations also specify that sanitation infrastructure must be safe and built to the required standards. Pit latrines should be built at least 10 metres away from tuition blocks. When ablution block is attached to the other

buildings a high degree of cleanness must be maintained. Pit latrines should be at least 15 metres away from a water point. In mixed schools, girls' sanitation facilities must be separate and offer complete privacy. In construction of sanitation facilities, the following must be observed. The first thirty learners, 4 closet holes. A maximum of 270 learners: one closet for thirty learners. In all schools, appropriate provision should be given to learners with special needs (MoE, 2005).

Various government policies which have been put more emphasis in the Kenyan schools have not solely addressed on the areas of infrastructure development. For instance, one good policy is that of Free Secondary Education (FSE) policy. This policy has been implemented with a main objective of ensuring that deserving children from poor family backgrounds do not miss out on secondary education. as such, this policies misses out on addressing how infrastructures may be put in place so as to support those children from poor backgrounds to accessing education in schools that have good infrastructure and a conducive learning environment (Mbayah & Maende, 2011).

According to an observation made by Republic of Kenya (2010) and Chiuri and Kiumi (2005), poor educational policies which lead to unchecked arbitrary increase of school fees and other levies like teachers motivation, purchase of school bus among others in schools poses a challenge in to the government of Kenya in effectively implementing the FSE policy as well as ensuring that it provides an avenue for infrastructure development consideration in the respective schools.

As it has been reviewed in this section, there are indeed a number of provisions which have been made by the government concerning the state of infrastructure in primary schools. However, one question that still lingers in individuals' minds is, what then is the issue that has led to the prevalence of poor infrastructural development in schools despite government policies having been put in place to address on the issue? Moreover, there are no much empirical studies which have been done on the influence government policies on infrastructure development in schools. As such, this study intends to examine how then the government policies are influencing infrastructure development in primary schools in Kenya.

## **2.6 Influence of attitude on infrastructure development**

The attitude that different stakeholders have may influence the extent to which infrastructure may be developed in schools. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. Multistage random sampling was followed in collection of data from 572 students of different schools located in 6 high and 6 less literate rural blocks in 6 different districts of West Bengal. Four questionnaires were developed to assess (a) Demographic and socio-economic conditions (b) Attitude towards school infrastructure (c) School attendance motivation and (d) Academic performance of students. Nine attitudes (cleanliness, safety, comfort, adequacy, exploring, reliability, easiness, equal opportunity, willingness to participate in school activities) towards school infrastructure were initially conceptualized and accordingly one highly reliable (Kuder Richardson reliability = 0.90) 68-item questionnaire was developed.

Results revealed that attitude varies with differences in religion, socio economic status, districts, literacy rate of blocks, and with available school infrastructure facilities. The study also found out that attitude determines one's motivation to use infrastructure.

The involvement of community members in the infrastructural development is also a key element which may be largely influenced by the type of attitude that they have towards their responsibilities. A study by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure. It was shown that if the public positively viewed the infrastructure as being beneficial, they directly engaged themselves in developing the infrastructure and vice versa.

Another study was carried out by Gbolagade, Omotesho, Komolafe, Oni & Adereti (2014) to examine rural youth participation in infrastructural development in Isin local government area of Kwara State, Nigeria. Data were collected with the aid of a questionnaire, which was analyzed using frequency count and percentages. Chi-square analysis was used to test the hypothesis of significance between the socio-economic characteristics and the level of participation in infrastructural development. Besides, in infrastructural development as well as the associated constraints which include finance, availability of materials, technical knowledge and time, attitude was raised as a key issue which influenced the participation of youth in infrastructure development. The limitation of this study was that it only focused on

infrastructural development in the community and thus there is need for the current study to be done to investigate on how attitude influence infrastructure development in schools.

It is widely recognized that parents can provide valuable help for their children by showing that they are interested in their school work and see the value of what they study at school. There is strong evidence that this form of support can have a real and positive effect on performance of children at school and, therefore, on their future (The Scottish Office, 2002). The same concept applies also when it comes to parents showing interest on the learning environments of their children. The interest shown is an indication of positive attitude towards infrastructure development. Lack of interest among parents in the infrastructure of schools that pupils use in their learning process may influence their extent of involvement in the development of infrastructure in schools.

Moreover, the attitude of parents in the development process of infrastructure is very important. Through positive attitude, parents may get themselves involved in various ways. These ways include but may not be limited to being involved in decision making processes at school level, collaborating with the community by identifying and integrating resources and services from the community to strengthen school programmes and infrastructure development, family practices and student learning and development (Nandango, Obondoh & Otiende, 2005).

## **2.7 Summary of literature review**

The literature review has shown the importance of effectiveness of physical infrastructure funding in primary schools has shown that any study of school funding has to take into account school physical infrastructure (Crampton & Thompson, 2003). The review has also attempted to establish a link between a school's physical infrastructure funding and quality education. Studies also show that effective school physical infrastructure funding will positively affect school quality (American Federation of Teachers (AFT), 2008). However, most studies (UNESCO, 2010; Crampton & Thompson, 2008), have concentrated on the effect of infrastructure funding on specific learning outcomes for example, teacher and student motivation. The literature review also suggests that funding for physical infrastructure in school is a good investment that gives positive outcomes (Mabula, 2011). However, there is little that has been done to study infrastructure development in primary schools, with more specificity to Kathonzwani Division.

## **2.8 Theoretical framework**

This study was guided by the Reinforcement theory of B.F. Skinner developed in 1953. This is a fundamental learning theory based on the premise that it is believed that behaviour is a function of its environment. Positive school environment includes the infrastructure and other facilities which make the learning environment better. This is positive 'reinforcement' which supports learning.

There are a number of strengths which have continuously supported the prevalence of reinforcement theory in many organizations. These strengths include the fact that it Provides clues to motivation, keeps employees involved, it is easily applied in any given setting and Impressive research support (Redmond, 2010). Despite the strengths, there are a number of challenges which are faced in the application of the theory. These challenges/weaknesses include difficulty in identifying rewards/punishments, hard to apply to complicated forms of behavior, imposes on freewill and it effectively often expires. Moreover, reinforcement theory also disregards internal motivation.

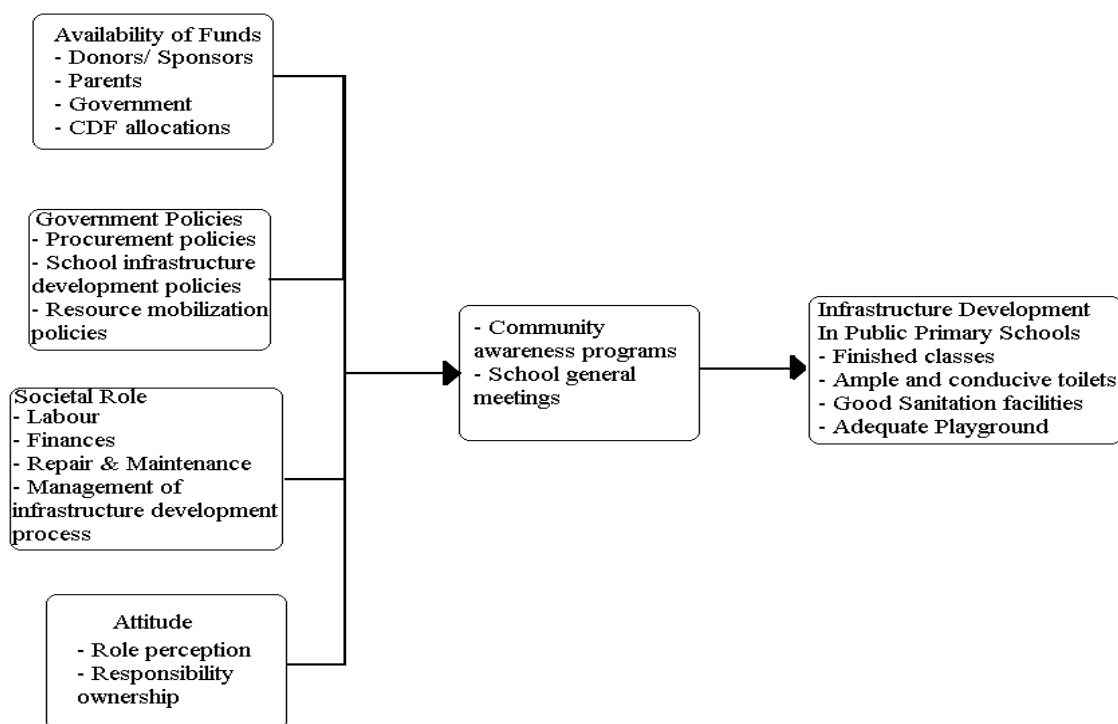
In the context of this study, reinforcement theory was found to be much more relevant. The theory was considered appropriate because the learning environment created by having suitable infrastructure in school forms part of a conducive environment for the learners. This is realized in the form of appropriate classroom, sufficient desks, toilet facilities, a kitchen to cater for their meals and playground for physical fitness and even spacious and well-tended lawns where children will relax during their free time form class.

Moreover, when the head teacher ensures that such facilities are available, they are involved in helping to set a suitable environment for nurturing good behaviour which is expected to translate into better performance by children. The good learning environment as a reinforcement factor serves to nurture and support good behaviour for the pupils. In the absence of such facilities, the learning environment is

compromised and the learners may not have sufficient support to influence them towards the desired behaviour change that the school should build in them.

## 2.9 Conceptual framework

This study conceptualizes that the dependent variable depends upon various other independent variables. Development of infrastructure in schools has been considered as the dependent variable which depends upon various independent variables which include availability of funds, government policies, role of the community and stakeholders' attitude. These processes considered in the mobilization of resources for funds include fundraisers, grants, labour, school fees and sponsorships. The relationship between the variables is as summarized in Figure 2.1.



**Figure 2.1: Factors influencing infrastructure development in public primary schools**

As it has been conceptualized in this study, there are various factors which affect infrastructure development in public primary schools. These include availability of funds, government policies, societal role and attitude. To begin with, schools may try to evaluate the amount of funds they have and see whether it can facilitate the process of infrastructure development in schools. Without funds, schools may not develop new or even repair the already available physical infrastructure. On the other hand, the government policy provision also does influence the development of infrastructure especially in public schools. These schools are always under the management and control of the government. As such, if the policies formulate do not address the infrastructure development in the school, no progress will be experienced.

The involvement of society and attitude are two key factors which go hand in hand together. It may be observed that if the society that is inclusive of parents have negative attitude towards infrastructure development in schools, then they will not be involved in the process and vice versa. Moreover, the roles of the societal members which include provision of labor, finances, repair and maintenance may not be fully achieved if the participants have a negative attitude. For these factors to be properly utilized so as to facilitate infrastructure development there are a number of processes which are to be put in place. These include constant community awareness programs on infrastructure development and school general meetings where parents are encouraged to participate in the infrastructure development process. Through this process, the schools are able to improve on infrastructure development in schools.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

This chapter presents the research design, target population, sample size and sampling procedures, research instruments, data collection procedure and data analysis techniques.

#### **3.2 Research design**

Research design is a logical and valuable way of looking at the world (Gall, Borg & Gall, 2003). A descriptive survey research design was used in this study. This design was used because it enables investigation into the subject under study. Gay and Airasian (2000) indicate that descriptive survey design is used on preliminary and exploratory studies to enable the researcher collect information, summarize, present and interpret for clarification purposes.

In the context of the study, the research design enabled the researcher to collect information from various key respondents on the factors influencing infrastructure development in public primary schools in Kathonzweni division. This was through the help of questionnaires, interview guides and observation guide.

#### **3.3 Target population**

This study was conducted in all public primary schools in Kathonzweni division of Makueni County. According to records obtained from the office of the DEO

Kathonzweni district, this division has 27 public primary schools. The target population consisted of 27 head teachers, the DEO, the DQASO and the AEO. Additionally, the B.O.M chairpersons (27) and 27 PTA chairpersons also targeted in the study.

### **3.4 Sample size and sampling procedures**

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda & Mugenda, 2003). This subgroup was carefully selected to be representative of the whole population with the relevant characteristics. Each member or case in the sample is referred to as subject, respondent or interviewees. The sample for this study consisted of 27 head teachers, 27 Board of Management and 27 PTA Chairpersons, DEO, DQASO and AEO. In total, the sample size for this study was eighty four (84).

Sampling is referred to as a process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group (Orodho, 2004). A census sampling method was used in this study to select all head teachers, B.O.M and PTA chairpersons. This sampling method was used in this study owing to the fact that the respondents are few and thus for comprehensive data to be obtained it was necessary to select all of them. In total, 27 head teachers, 27 PTA chairpersons and 27 B.O.M members were selected to participate in the study.

On the other hand, purposive sampling method was used to select the DEO, DQASO and AEO. This sampling procedure was used simply because these respondents held key positions in the education sector in the district and thus they were in a better position of providing adequate, relevant and key information on the area under study. moreover, these respondents were held as key informants in the study.

### **3.5 Research instruments**

This study employed questionnaires, interview guides and an observation checklist.

#### **Questionnaires**

A questionnaire is a research instrument that gathers data on a large sample, save on time, and can uphold confidentiality. According to Lovell and Lawson (1970), questionnaires are widely used in education to obtain information about current condition and practice, and to make attitudes and opinions. Further, Best and Khan (2003) points out that a questionnaire enables a person administering them to explain the purpose of the study and to give meaning of the items that may not be clear. They have the advantage of asking specific questions which call for specific answers. The answers can be classified and the information contained in the responses quantified. In this study the questionnaires was expected to elicit information from head teachers. The questionnaire was structured based on the research objectives.

#### **Interview guide**

Interview guide was used because they yield highest cooperation and lowest refusal rates, offers high response quality and takes advantage of interviewer presence and

its multi-method data collection, which combines questioning, cross-examination and probing approaches (Owens, 2002). The researcher interviewed the Board of Management (B.O.M) and Parent Teacher Association (P.T.A) chairpersons, AEO, DQASO and DEO to elicit information that met the study objectives. The interview guide was semi-structured (with some closed and open ended items) and was divided into two main sections, namely demographic characteristics of the respondents and the factors that influence infrastructure development in public primary schools.

### **Observation checklist**

The researcher also observed the infrastructural facilities and school records to help in assessing their levels of infrastructure development. Observation makes the observer to detach himself from the social setting being investigated and allows him to gain a more objective view of the reality being investigated (Scott & Usher, 2004). Moreover, the checklist was used to assess the quality, quantity and conditions of the infrastructure.

### **3.6 Validity of instruments**

Validity is concerned with establishing whether the instruments are measuring what they are supposed to measure (Gay, 1992). Orodho (2009) defines it as the degree to which a test measures what it purports to be measuring. It is an important characteristic of a scientific instrument. It is correlation of a test with some outside independent criteria which are regarded by experts as the best measure of the trait. Singh (1986) and Orodho (2009) tend to concur that validity is concerned with

general ability. When a test is valid, it means its conclusion can be generalized in relation to the general population. The researcher used peer review of the instruments to test their validity and also sought for expert knowledge of the supervisors to ascertain their validity. Three public schools from the neighboring Mavindini Division were used as a pilot study to pre-test the validity of the instruments.

### **3.7 Reliability of instruments**

Kombo and Tromp (2006) define reliability as the degree to which a test consistently measures whatever it measures. That is, the ability to consistently yield the same results when repeated measurements are taken of the same object under the same conditions (Gay, 1999). To establish the reliability of the research instruments, the researcher carried out a pilot test of the instruments using another similar group with the same characteristics as the one targeted in the study. The reliability of the instruments was computed using Cronbach's Alpha reliability coefficient method. The most common internal consistency measure is Cronbach's alpha, which is usually interpreted as the mean of all possible coefficients.

The data was computed using SPSS computer program to determine Cronbach's reliability coefficient. The respondents for the pilot test were picked from 3 public primary schools from the neighboring Mavindini Division. These schools and the respondents did not form part of the actual study. After filing the questionnaires, they were collected, scored and manually tested for reliability. The correlation coefficient found was 0.8. According to an observation made by George and Mallery (2003), if a

Cronbach's reliability correlation coefficient is greater or equal to 0.7 is obtained then the questionnaires are treated as reliable. As such, the questionnaire was held as reliable. On the other hand, the interview guides and observation checklist were not tested for reliability.

### **3.8 Data collection procedures**

First, the researcher requested for an introductory letter from University of Nairobi. He then sought for a permit from the National Commission for Science, Technology and Innovation (NACOSTI). This was presented to the District Education Officer in charge of Kathonzweni for authority to carry on with research in the study locale. The researcher then visited the schools for introductory purposes and requested for appointment from the head teachers about when to administer the instruments to the respondents.

The questionnaire was administered in person and collected once filled. The researcher also booked meetings with the BoM and PTA chairpersons for the interviews. The interview was conducted in a conducive environment. Moreover, during the distribution of the questionnaires the researcher was also observing the various infrastructures in the school and thus ticking the observation checklist according the prevailing conditions. Lastly, a meeting with the DEO, DQASO and AEO was also organized and the interview conducted. Once the data collection was done, the data was picked and used for analysis.

### **3.9 Data analysis techniques**

Collected data was first checked for completeness before analysis. Data analysis involved both qualitative and quantitative. Quantitative data was analysed using descriptive statistics, which involved a process of transforming a mass of raw data into tables, charts, with frequency distribution and percentages which formed a vital part of making sense of the data (Mugenda, 2003). The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) program and presented using tables, graphs and pie charts and prose form to give a clear picture of the research findings at a glance. The qualitative data was subjected to analysis by synthesizing the responses and thematically arranging them in conformity with the study objectives. This helped the researcher to summarize the information and present them as discussions on infrastructure development in schools.

### **3.10 Ethical considerations**

In this study, the rights of the research participants were ensured. This was done based on ensuring that the principles governing research participants were followed. The principle of voluntary participation which requires that people are not coerced into participating in research was followed. The informed consent of the participants was also ensured by explaining the aim of the study and the procedures involved. The participants' information was confidential. Further the principle of anonymity was also adhered to. The participant remained anonymous throughout the study.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

The chapter is presented based on the following sections: response rate, background information of the respondents, availability of funds and infrastructure development in schools, role of community in infrastructure development, policies and regulation on infrastructure development and stakeholders' attitude and infrastructure development.

#### 4.2 Response rate

This section presents the response rate of the respondents who participated in the study. During data collection, the researcher issued twenty seven questionnaires to the head teachers, twenty seven interview guides to the PTA and B.O.M respectively and one interview guide for AEO, DQASO and DEO respectively. The results are presented in Table 4.1

**Table 4. 1: Instrument response rate**

<b>Respondents</b>	<b>Issued instruments</b>	<b>Received Instruments</b>	<b>Percentage (%)</b>
Head Teachers	27	27	100
PTA	27	25	92.6
B.O.M	27	24	88.9
AEO	1	1	100
DEO	1	1	100
DQASO	1	1	100
<b>TOTAL</b>	<b>84</b>	<b>79</b>	<b>94%</b>

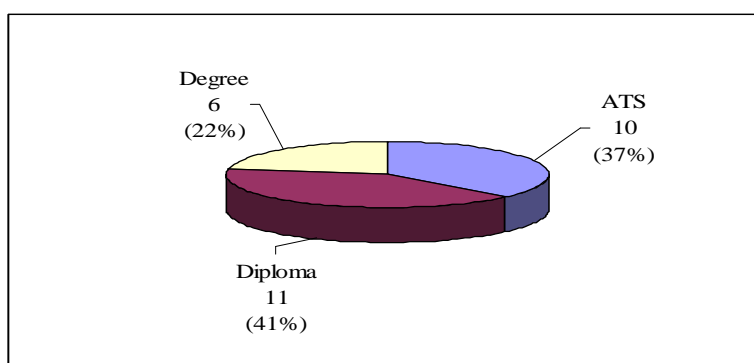
A total of 84 instruments were given to the respondents. However, only 79 instruments were received that had been fully responded to. This translates to a response rate of 94%. This representation is good enough for the data analysis.

### 4.3 Background information of head teachers

The head teachers who participated in this study were given a number of questions for background information. These questions captured elements such as educational qualification, working experience, number of pupils enrolled in schools and the conditions of the available infrastructure in public primary schools.

#### 4.3.1 Highest educational qualification

The head teachers were asked to give their highest educational qualification. The educational qualification was asked so as for the researcher to establish the educational qualification of teachers in schools who are involved in infrastructure development. This was categorized into P1, ATS, Diploma, Degree and Masters Degree. However, only a few academic qualification responses were provided. These are as summarized by Figure 4.1.

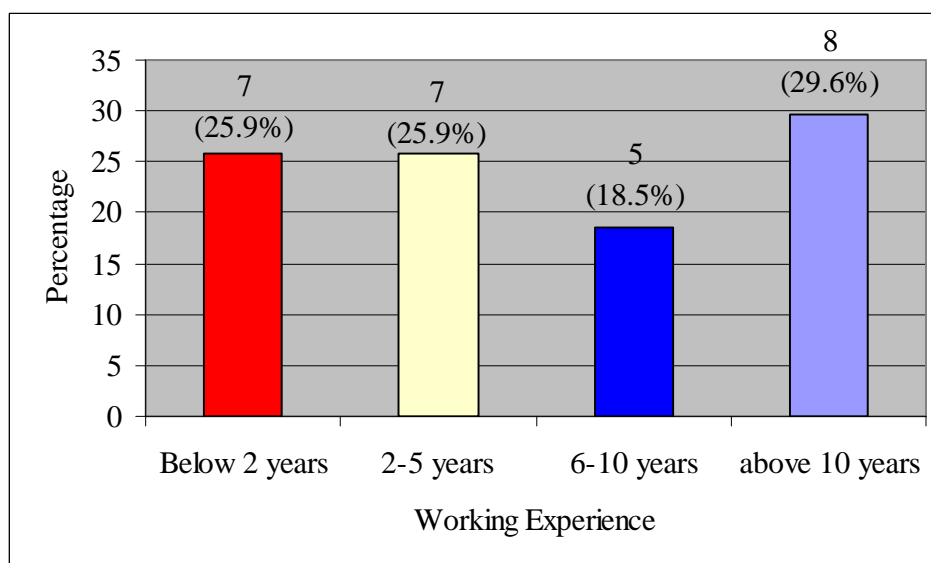


**Figure 4. 1: Distribution of the head teachers by their highest education qualification**

The data in figure 4.1 indicates that majority of the primary school head teachers 11 (41%) had a diploma as their highest educational qualification. Slightly more than a third of them 10 (37%) however indicated that they had been able to achieve a degree as their highest academic qualification.

### 4.3.2 Working experience

The working experience of the head teachers was also looked into in this study. The working experience of the teachers was looked into so as to establish the period individuals have been involved in the infrastructure development processes in the school. This was categorized into below 2 years, 2-5 years, 6-10 years and above 10 years. The data is presented in Figure 4.2.



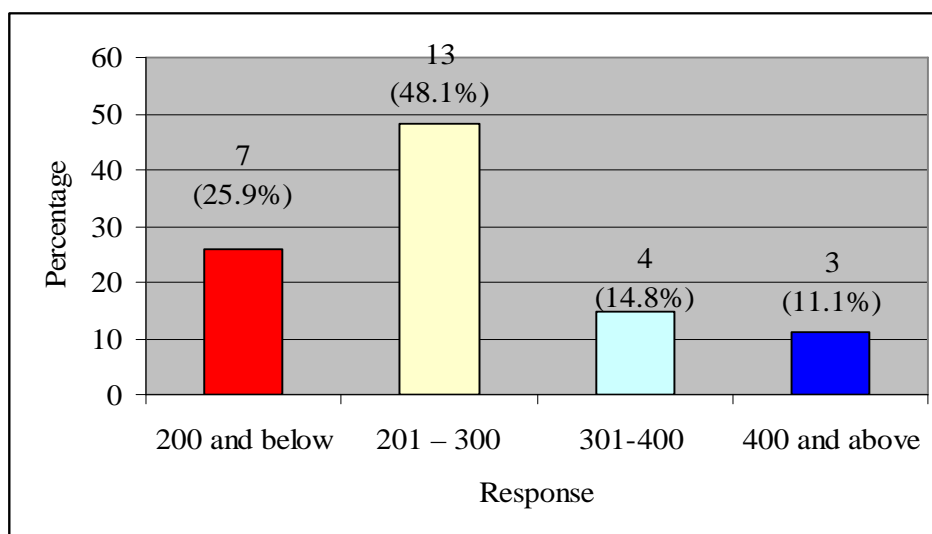
**Figure 4. 2: Distribution of head teachers by their working experience**

The data in figure 4.2 shows that there is an even distribution of head teachers with reference to working experience. Slightly more than half of the head teachers 14 (51.8%) had a working experience of less than 5 years whereas 48.1% of them had a

working experience of more than 6 years. The distributions however show that most of the teachers in the public primary schools indeed have been in the schools for quite a good period to be in a position to facilitate infrastructure development processes in schools.

### 4.3.3 Number of pupils enrolled in schools

The head teachers were further asked to state the number of pupils attending their respective schools. The information or numbers provided were further summarized into the following categories 200 and below, 201-300, 301-400 and 400 and above pupils. The responses are as summarized by the Figure 4.3.



**Figure 4. 3: Distribution of head teachers response on the number of pupils enrolled in schools**

Figure 4.3 shows that slightly less than a half of the head teachers 13 (48.1%) indicated that the number of pupils attending their respective schools ranged from 201-300 pupils. Slightly more than a quarter of them 7 (25.9%) however indicated

that the number of pupils was not more than 200. according to these distributions, it may be deduced that indeed public primary schools contain quite a number of pupils and thus their population may pose a challenge to the available infrastructures.

#### 4.3.4 Conditions of the available infrastructure in school

The head teachers were further asked to rate whether the conditions of the various infrastructures in the schools were good, very good or poor. The infrastructure listed included classrooms, school furniture, toilet, kitchen and water point/tanks. Table 4.2 present the data.

**Table 4.2: Distribution of head teachers responses on the quality of infrastructure in schools**

	Good		Very Good		Poor	
	F	%	F	%	F	%
Classrooms	23	85.2	-	-	4	14.8
Furniture	20	74.1	-	-	7	25.9
Toilet	16	59.3	1	3.7	10	37.0
Kitchen	12	44.4	1	3.7	14	51.9
Water point/ Tank	13	48.1	6	22.2	8	29.6

Table 4.2 shows that majority of the head teachers were positive that the conditions of the infrastructure in schools were in a good state. However, there are those schools in the district which have infrastructures that are in a poor state. One of the leading infrastructures that are in poor conditions in the schools is the kitchen

(51.9%), followed by toilets (37%), water points/tanks (29.6%) and school furniture (25.9%) respectively.

The researcher also looked at the conditions of the infrastructure with the help of the observation guide. Through the guide, it was found that not all the schools in the division had quality infrastructure. Moreover, some of the classes had deteriorating facilities and this posed a great challenge on the learning processes in the school. Moreover, the researcher also observed that there were certain schools which had unfinished structures in the school. Other infrastructural elements that were found to be inadequate in the schools compare to the ratio of students available included play grounds, classrooms, toilets and water points. This finding justifies a previous research which was done on the impact that the enrollment rates had on infrastructure in schools. According to an observation by the UNICEF (2005), the increased enrollment of pupils in schools since the inception of free primary education has contributed to increased pressure on the available infrastructure.

#### **4.4 Availability of funds for infrastructure development**

Availability of funds plays a critical role when it comes to initiating projects on infrastructure development. When the funds are inadequate, then the projects may not be able to progress effectively. As such, this study sought to establish how adequacy of funds affected infrastructure development in primary schools in Kathonzweni Division.

#### 4.4.1 Methods Used To Raise Money to Develop Infrastructure in Schools

The head teachers were asked to indicate the methods that they used to raise money to develop infrastructure in schools. The methods that were suggested included government allocations, CDF funds, religious organizations, school fees, parents' contributions and donors. The data is presented in Table 4.3

**Table 4.3: Distribution of head teachers on the methods used to raise money for infrastructure development in schools**

	Yes		No	
	F	%	F	%
Parents Contributions	23	85.2	4	14.8
Government allocation	20	74.1	7	25.9
CDF	18	66.7	9	33.3
Donors	9	33.3	18	66.7
Religious organizations	7	25.9	20	74.1
School Fees	5	18.5	22	81.5

Table 4.3 shows that an overwhelming majority of the head teachers (85.2%) agreed that they used parents' contribution to raise money for infrastructure development in the school. Majority of them (74.1%) also indicated that government allocation was a key method used for generating money to facilitate infrastructure development in the schools. Other key methods suggested by the head teachers included CDF Funds (66.7%), donors (33.3%) and religious organizations (25.9%) respectively.

#### 4.4.2 Source of funds in schools for infrastructure

Further, the head teachers were also asked to specify various sources of funds for different infrastructures available in schools. The sources that were highlighted included fees, CDF, Donors, Parents contribution and Donors. The data is presented in Table 4.4.

**Table 4. 4: Distribution of head teachers on the sources of funds for different infrastructures in the school**

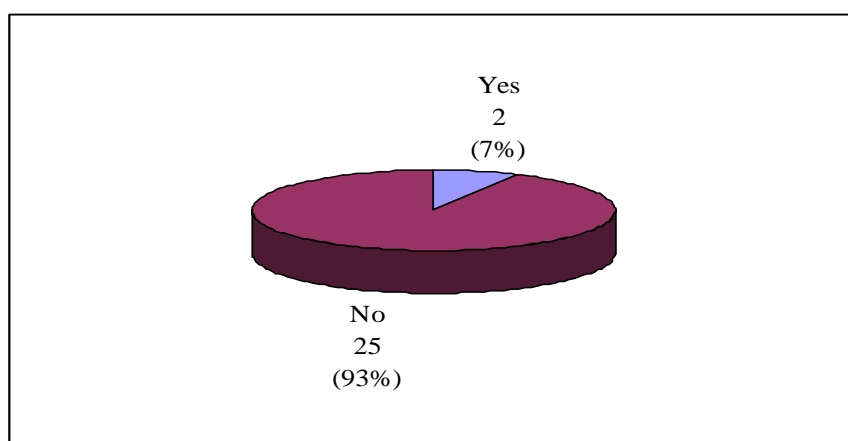
	Fees, CDF, Donors		Parents Contribution		Donors	
	F	%	F	%	F	%
Classrooms	18	66.7	7	25.9	2	7.4
Furniture	6	22.2	18	66.7	3	11.1
Toilet	8	29.6	12	44.4	7	25.9
Kitchen	5	18.5	18	66.7	4	14.8
Water point/ Tank	5	18.5	1	3.7	21	77.8

According to the data in Table 4.4, majority of the head teachers (66.7%) indicated that the funds came from the fees, CDF funds and donors. A quarter of them (25.9%) indicated that the money came from the contributions given by parents towards classroom infrastructure development. When asked to indicate the sources of funds for furniture in schools, majority of the head teachers (66.7%) indicated parents' contributions. Only a few of them (22.2%) indicated the sources to be from Fees, CDF funds and donors.

In terms of toilet, a good percentage of the head teachers (44.4%) indicated that parents' contribution was largely used in the development of toilets in schools. Slightly more than a quarter of them (29.6%) indicated that Fees, CDF funds and Donors were the main sources of funds for the development of toilet faculties. However, from the open ended questions, the teachers indicated that they still faced a challenge in the quality of toilets in the school. Parents' contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in schools. On the other hand, donors are the ones who fund the development of water points/ tanks in the schools.

#### **4.4.3 Whether funds provided for physical infrastructure is adequate**

The head teachers further gave their responses regarding whether the funds that were being provided were adequate enough to support infrastructure development in the schools. The data is presented in Figure 4.4.

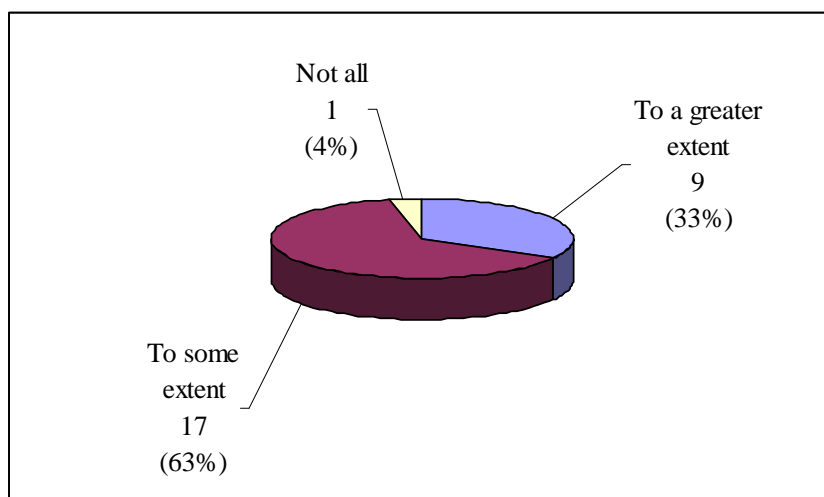


**Figure 4. 4: Distribution of head teachers on whether the funds provided for physical infrastructure development were adequate**

An overwhelming majority of the head teachers 25 (93%) indicated that the funds provided for infrastructure development were not adequate. Only two of them indicated that the funds were adequate.

#### 4.4.4 Extent to which funds influenced infrastructure development in the school

The head teachers were lastly asked to indicate the extent to which funds influenced infrastructure development in their respective schools. Figure 4.5 shows a summary of the findings obtained.



**Figure 4. 5: The extent to which funds influenced infrastructure development in the school**

The results in figure 4.5 show that majority of the head teachers 17 (63%) were in agreement that the availability of funds did influence infrastructure development in their respective schools to some extent. This was further supported by a third of them 9 (33%) who indicated that it did influence but to a greater extent.

In responding on the sources of funding for infrastructure development in schools, the PTA members reported that the school sources its funds for infrastructure development through the parents, donations and CDF and County government. This was further supported by the BoM who also indicated that the parents, donors and the government contributed funds used for infrastructure development in the school. The BoM members also reported that for resource mobilization practices, the school wrote proposals which were then issued to government or possible donors to support the infrastructure development process. The PTA and BoM however indicated that the funds which were being provided were not adequate to support full development of infrastructure in the school. This in the long run led to some infrastructures being left unfinished and thus also posing health risks to the pupils in the schools.

The AEO, DQASO and DEO also gave their own response regarding the sources of funding for infrastructure development in schools. All of them indicated that the key sources included government, CDF funds, MoEST, NGOs, donors and parents. The AEO further went on ahead to report that “Factors that made the sources mentioned above prevalent chooses as the main ways of raising money for funding school infrastructure included school enrollment and availability of general awareness”.

Schools have been suggested as to contribute towards the funding of infrastructure development in schools. This is in line with Elcher (1989) who observed that school financing has been the major source of funding for infrastructure development in primary schools. He further went on ahead to report physical infrastructure funding involved the funds or efforts expected on building, land, physical environment,

furniture and black wall either in form of repair and maintenance, construction and infrastructure management.

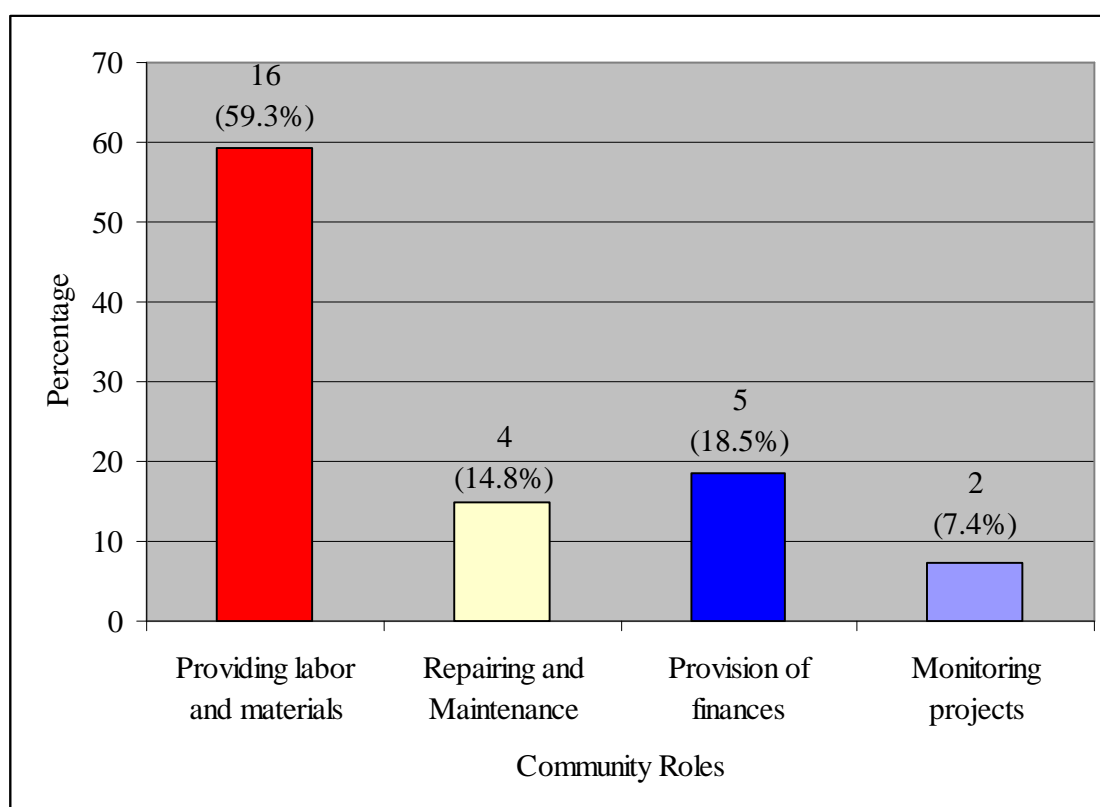
Besides schools being a source of finance, this study has also established that parents, government contributions and CDF funds contributed to the finances used in infrastructure development. This finding concurs with The Unynck (2003) who reported that funding for physical infrastructure was the responsibility of communities, parents and government. Community funding is very effective in cases in which the community desires to make future sacrifices to satisfy the practical needs. External help should just be a supplement. The study also established that donors were also involved in providing finances to support infrastructure development. One of the external donors as noted by World Bank (1988) is the World Bank. It is reported that World Bank is the most significant external funding bodies for education.

#### **4.5 Role of community in infrastructure development**

Infrastructure development in schools may not be effectively or fully realized without the cooperation of the school community members as well stakeholders. This study was thus set to determine how community involvement influenced infrastructure development in primary schools in Kathonzweni Division. To answer this objective, there are a number of questions that were asked. These included the community member roles in infrastructure development, members involved in repairing broken furniture and the extent to which community roles have contributed towards infrastructure development.

#### 4.5.1 Community members' role in infrastructure development

The head teachers were asked to indicate the role that the community members played when it came to infrastructure development in the schools. Some of the roles suggested included providing labor and materials, repairing and maintenance, provision of finances and monitoring infrastructure development projects in the schools. The responses obtained are as shown by Figure 4.6.



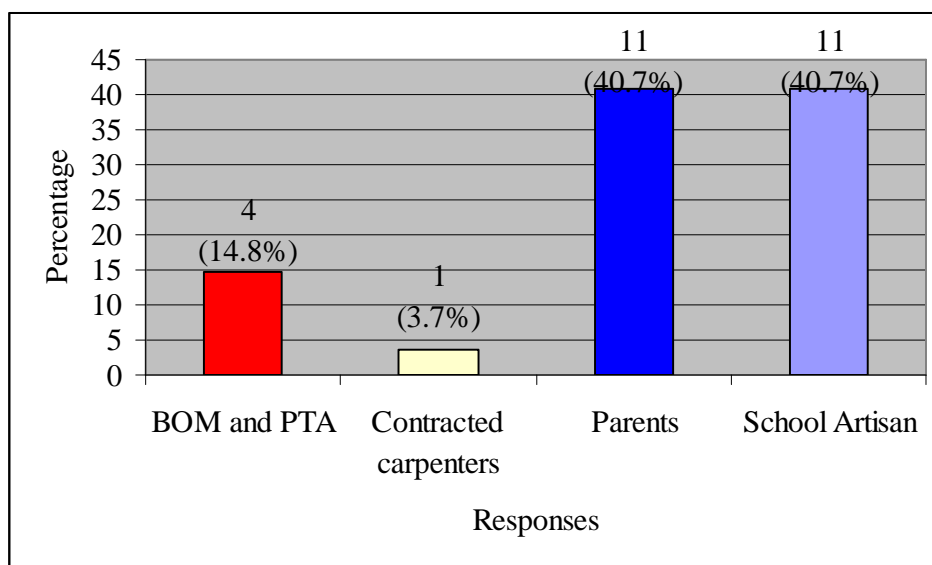
**Figure 4. 6: The role of community in infrastructure development in schools**

The data in figure 4.6 shows that slightly more than half of the head teachers 16 (59.1%) indicated that the community members were involved providing labor and

materials. Other roles played by the community members in infrastructure development included repairing and maintenance and provision of finances.

#### 4.5.2 Members involved in repairing broken furniture

Moreover, the head teachers went on ahead to indicate some of the community members who were being involved in the repairing of broken down furniture in the school. These members included Board of Management, Parent and Teachers Association, Contracted Carpenters, parents and the school. The data is presented in Figure 4.7.

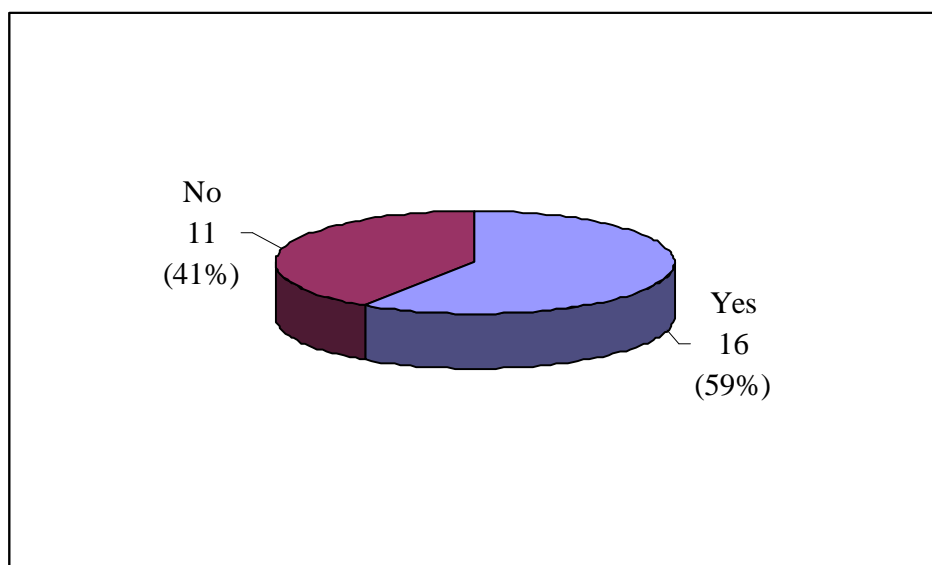


**Figure 4. 7: Head teachers responses on who repairs broken down furniture in the school**

The results in figure 4.7 show that majority of the head teachers indicated that parents 11 (40.7%) and school artisans 11 (40.7%) were the key community members involved in the repairing of broken furniture in the schools. A few of them

4 (14.8%) however indicated that the Board of management and PTA were the key partners involved in the repairing of broken infrastructure.

Having known the members involved in repairing broken furniture in the schools, the head teachers were further asked to indicate whether these furniture were being repaired on time. The data is presented in Figure 4.8.

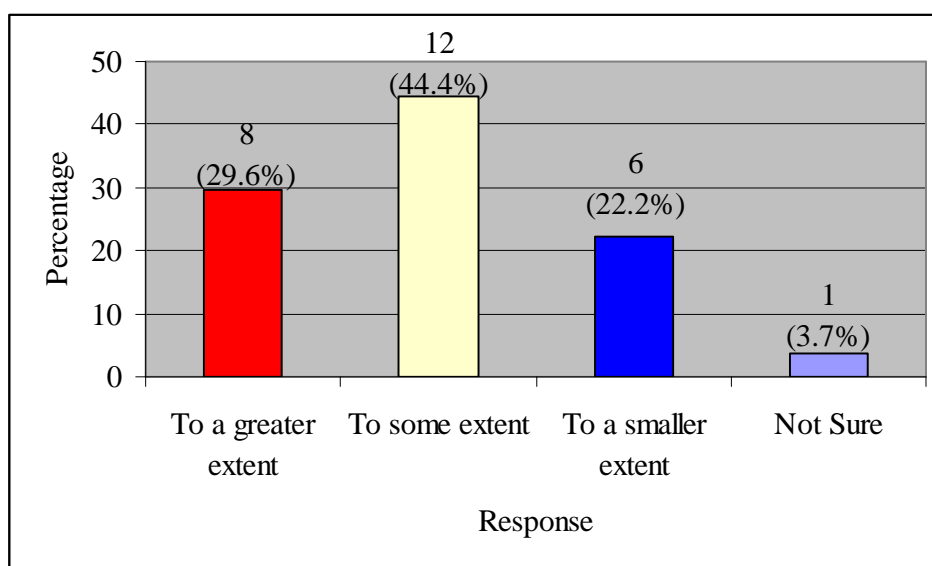


**Figure 4. 8: Distribution of head teachers response on whether the involved community members repaired the broken furniture in time**

The findings in figure 4.7 show that slightly more than half of the head teachers 16 (59%) agreed that the broken furniture was being prepared in time. However, a good percentage of them 11 (41%) indicated that the broken furniture was not being repaired in time.

### 4.5.3 Extent to which community roles have contributed towards infrastructure development

The respondents gave their responses on the extent to which community roles contributed towards infrastructure development in public primary schools in the district. Figure 4.9 presents a summary of the findings obtained.



**Figure 4. 9: Distribution of head teachers on the extent to which community roles have contributed towards infrastructure development**

The data in figure 4.9 show that a good percentage of the head teachers were positive regarding the extent to which community members contributed towards infrastructure development. 44.4% of them indicated to some extent whereas slightly more than a quarter of the head teachers 8 (29.6%) indicated that community roles contributed towards infrastructure development to a greater extent.

With regards to community involvement in infrastructure development, the PTA members had a number of responses to provide. They reported that the community members have been involved in infrastructure development through donating items such as water tanks among many others; some of the community members are less concerned and think that it is the responsibility of the MOE to do all the infrastructural development works in the schools; the community members ensure that the government has developed enough buildings in the school. This was further supported by the BoM who indicated that indeed the community members played various roles in facilitating infrastructure development in the school. They reported that community members provided labour as well as materials which aided in the infrastructure development process. However, they reported that a key challenge which affected the full participation of the community in infrastructure development was poverty.

The AEO reported that:

Poverty and misplaced priorities are major challenges affecting infrastructure development as well as resource mobilization among the community members. This affects to a greater extent the involvement of the community in supporting development in the respective schools.

DQASO officer on the other hand reported that the level of education and awareness is a critical issue which affected the involvement of various stakeholders in the

infrastructure development process in schools. Further, the officer went on ahead to report that:

Poverty levels and political interferences are the major issues which are affecting the effective involvement of local community members in infrastructural development in the respective public schools in the area.

On the other hand, the DEO reported that:

Poverty is a major issue which is hindering the full involvement of local community members in the infrastructure development. And most of the funds are used to purchase food instead of being put into infrastructure development.

In 1960s communities, parents and local authorities were principally responsible for capital investment in primary education throughout East Africa (Bogonko, 1992). The communities' contributions ranged from poles, thatch cash and labour.

Black & Scendlen (1980) also supports the findings of this study by indicating that funding primary school education infrastructure has been largely dependent on local community. Additionally, MOE (2009) comments that community contribution either in terms of financial resources depending on the economic level or in kind is required to support government and other pertinent contributions. Communities are expected to provide firewood, employ a cook, provide kitchen utensils, cooking water and monitor the utilization of the project's funds, as part of their contribution (MOE, 2009).

Moreover, the findings of this study is in-line with a survey carried out by Thinh (1991) which observed that PTAs provided for 21.2% of the cost of building 63.8% of the cost of furniture and equipment, 63.4% repairs and 87.7% of general contingencies. In Malaysia, it is the parents associations (PAs). The role of the parents associations is primarily that of material support; for example, contributing to building of school halls, canteens and adding classes. The PAs have come to play a central role in construction and maintenance of building and facilities in association with the local education councils. PAs persuade and encourage local production and trading establishments in building educational facilities. In Vietnam, most primary schools have been built by people through the PAs and the local educational councils. The association is also involved in the provision of desks, benches and in teaching aids etc (Thinh, 1991).

In further supporting the findings of this study on the involvement local community members in infrastructure development, Salomon and Anheier postulated that Christianity and particularly Protestantism permit the flourishing of the community actions because of its emphasis on individualism and its strong independence from state control. Gaduh (2012) also found that different religions had different impacts on the rise of the community action depending on the weight they assigned to charitable acts in terms of time and resources, supporting individual action, commitment to institution building and their relationship with the country.

#### 4.6 Policies and regulation on infrastructure development

Being public institutions of learning, government policies and regulations have a role that they may play in influencing infrastructure development projects. This study investigated how policies and regulations affect infrastructure development in primary schools in Kathonzweni Division. The head teachers were asked a number of questions and expected to give their responses as whether yes or no. Table 4.5 summarizes their responses.

**Table 4.5: Distribution of head teachers response on various issues regarding policies for infrastructure development**

	Yes		No	
	F	%	F	%
I am aware of the policies put in place by the government on infrastructure development in public schools	23	85.2	4	14.8
The school has a resource mobilization plan and policies which aid in infrastructure development policies	20	74.1	7	25.9
The available policies encourage the involvement of teachers in mobilizing resources for infrastructure development.	22	81.5	5	18.5
The policies put in place by the government encourage training of head teachers' involvement in infrastructural management and development.	24	88.9	3	11.1

Table 4.5 shows that majority of the head teachers (85.2%) indicated that they were aware of the policies put in place by the government on infrastructure development in public schools. A few of them (14.8%) indicated that they were not aware. In terms of resource mobilization plans, majority of the head teachers (74.1%) indicated that the school has a resource mobilization plan and policies which aid in infrastructure development policies. A quarter of them (25.9%) indicated that there were no such policies in the school.

The data in table 4.5 further showed that majority of the head teachers (81.5%) were positive by agreeing that the available policies encouraged the involvement of teachers in mobilizing resources for infrastructure development. A few of them (18.5%) however disagreed to the latter. Majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development.

The PTA members highlighted that there were a number of policies which had been put in place which governed the issue of infrastructure development in schools included the procurement policy and health and sanitation policy. However, one of the head teachers went on ahead to report that:

The procurement policy has been posing a challenge in the infrastructure development process in the school. Due to the policy, the bureaucracy is a bit tight and thus it takes a long time to procure materials which are required to facilitate infrastructure development.

In supporting the responses of the PTA, the members of the BoM were also in agreement that government policies did have an effect on infrastructure development process in public schools. They reported that the policies were not clear on the different roles that various stakeholders were supposed to play in the development process. Moreover, the policies were reported as to delay the procurement of materials which were required to facilitate the construction of infrastructure in the school.

In response to the effects of policies on infrastructure development in public primary schools, the DQASO officer reported that:

There are a number of policies which have been set aside to govern infrastructure development in schools. These policies include the safety standards policies. These policies address on how different infrastructures may be used in schools and safety maintained. Moreover, the available policies to some extent have influenced infrastructure development in schools through resource mobilization. For instance, procurement policies are very stringent and this makes the school representatives not able to afford various materials for infrastructural development.

Further, the AEO reported that:

There are policies addressing on infrastructure development in public primary schools. The government policies affect infrastructure development in that they

ensure proper use and give guidelines on how resources may be mobilized to facilitate infrastructure development in the public schools.

According to an observation made by the DEO, the main policies affecting infrastructure development in schools is the procurement policies and construction services. These policies are rigid and in most cases are bureaucratic in nature hence taking too long to process. Moreover, the policies tend to provide guidelines for proper usage of infrastructure.

In this section, the findings have shown that indeed policies do have an influence on infrastructure development. Some of the policies which have been pointed out in the study include procurement policies and health and safety policies. These policies have been pointed out as to determine how schools source for funds as well as get materials to the school to aid in infrastructure development. In supporting these findings, an article by UNESCO (2005) showed that appropriate and sufficient building, child friendly, safe environment enhance child rights. Such environments in schools can be realized through the prevalence of health and safety needs policies in schools. Moreover, the Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoE, 2005). This emphasizes the importance of complying with Education Act (Cap 211) and Public Health Act (Cap 242). The manual discusses size and number of physical infrastructure for resistance and recommends the need for sufficiency.

According to these acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users. However, one may find that the quality of such infrastructures in the respective public schools is inadequate. Moreover, the available facilities are always in poor conditions.

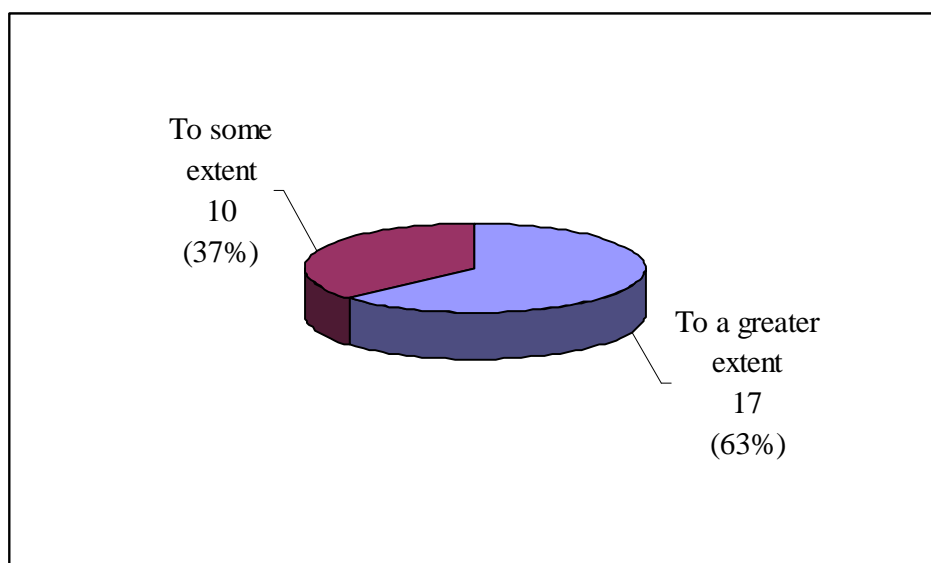
In conclusion, it may be reported that despite the prevalence of policies to aid in infrastructure development there are still issues which are hampering the effectiveness of these policies. Slowness in the procurement policies to the implementation process may raise eyebrows concerning the effectiveness of these policies. As such a recommendation can be given to address on the restructuring of policies to ensure their effectiveness in promoting infrastructure development in schools.

#### **4.7 Stakeholders' attitude and infrastructure development**

The fourth and last objective of the study was to examine how stakeholders' attitude affected infrastructure development in public primary schools. The head teachers were first asked to indicate whether they enjoyed being involved in infrastructure development in their respective schools. In this case almost all of them (96%) positively agreed that they enjoyed participating in infrastructure development process in their schools. Only one of the head teachers indicated that he did not

enjoy. Further, the head teachers were also asked to indicate the extent to which they enjoyed being involved in infrastructure development.

Figure 4.10 presents a summary of head teachers responses on the extent to which they enjoyed being involved in infrastructure development.



**Figure 4. 10: Distribution of head teachers on the extent to which they enjoy being involved in infrastructure development**

The data in figure 4.10 shows that there were those respondents who suggested that they enjoyed being involved in infrastructure development to a greater extent 17 (63%) where as others indicated to some extent 10 (37%).

Through the interview guides, the effects of stakeholders' attitude on infrastructure development were brought out clear. The PTA members for instance, indicated that attitude did have a great effect on the infrastructure development in schools. Most of them reported that some of the key stakeholders had a negative attitude and this

hindered them from being directly involved in the development process. One of the PTA members for instance reported that:

Some stakeholders have a negative attitude towards infrastructure development. Some of the members in the school tend to hold that infrastructure development is a responsibility of the government. As such, they do not contribute any resources or labour towards the development process.

Another PTA member further reported that “Some of the stakeholders have a negative attitude towards infrastructure development. They say that primary education is free hence they do not want to give money for buildings.” In summary, negative attitude among stakeholders led to inadequate involvement in infrastructure development, minimal provision of finances for infrastructure development and poor management of the already available infrastructure in the school.

In response to how stakeholders’ attitude affected infrastructure development, the AEO reported that:

The attitude of the stakeholders plays a major role in that they influence infrastructure development in the schools. In this case, many of the community members are of the perception that public school development is only for the government so they do not want to participate.

In further supporting the above statement by the AEO, the DQASO officer also reported that: “The attitude of the stakeholders affects their involvement in

infrastructural development differently. Positive attitude towards infrastructural development rises when there is full involvement of the members in the infrastructure development process.” On the other hand, the DEO reported that “most of the stakeholders have positive attitude however, financial problems at times makes them to develop coldness towards being involved in infrastructure development.”

Attitude has been found in this study as a major challenge on the involvement of stakeholders in infrastructure development. Most of the stakeholders are of the idea that development is for the government and thus they are not necessarily to be involved. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. The study found that attitude determined the extent to which members were motivated to use infrastructure as well as maintain it. Another study carried out by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary, conclusion and recommendations for this study.

#### **5.2 Summary of the study**

The main purpose of this study was to investigate the factors affecting infrastructure development in primary schools in Kathonzwi Division, Makueni County. The study was guided by the following research objectives: To establish how adequacy of funds affect infrastructure development in primary schools in Kathonzwi Division, to determine how community involvement influence infrastructure development in primary schools in Kathonzwi Division, to examine the effects of policies and regulations on infrastructure development in primary schools in Kathonzwi Division and to examine how attitude affects infrastructure development in primary schools in Kathonzwi Division.

A descriptive survey research design was used in this study. This design was used because it enables investigation into the subject under study. The sample for this study consisted of all the head teachers (27), Board of Management (27) and PTA Chairpersons (27), DEO (1), DQASO (1) and AEO (1). In total, the sample size for this study was eighty four (84). The head teachers, BoM and PTA chair persons were arrived at through census sampling method whereas the DEO, DQASO and AEO

were purposively selected to participate in the study. The data collection instruments used in the study included questionnaires for Head Teachers and interview guide for the B.O.M. and P.T.A chairpersons, AEO, DQASO and DEO and observation checklist.

The collected data was analyzed using descriptive statistics, employing both quantitative and qualitative approach. Data from questionnaires were purely analyzed quantitatively and presented in frequencies and percentages while data from interview guide was analyzed qualitatively. The study used SPSS (Statistical Package for Social Sciences) to aid in data analysis process. From the analysis, the following findings were made:

There are those schools in the district which have infrastructures that are in a poor state. One of the leading infrastructures that are in poor conditions in the schools is the kitchen, followed by toilets, water points/tanks and school furniture respectively. The key methods used to raise money for infrastructure development in schools include parents' contribution, government allocation and CDF funds.

For classroom infrastructure, majority of the head teachers (66.7%) indicated that the funds came from the fees, CDF funds and donors. Major sources of funds for school furniture include parents' contributions (66.7%). Parents' contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in

schools. An overwhelming majority of the head teachers (93%) indicated that the funds provided for infrastructure development were not adequate.

The PTA, BoM members and AEO, DQASO and DEO reported that the key sources of funds for infrastructure development include parents, CDF funds, government allocations and MoEST. Role of community members in infrastructure development include providing labour materials, repairing and maintenance, provision of finances and monitoring projects. Poverty, level of education and awareness and misplaced priorities affected the involvement of community members in infrastructure development.

Majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development. Majority of the head teachers (85.2%) indicated that they were aware of the policies put in place by the government on infrastructure development in public schools.

Attitude affects the extent to which stakeholders are involved in the infrastructural development. Most of the stakeholders such as parents have a negative attitude towards involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not them.

### **5.3 Conclusion**

From the analysis and summary of the study, there are a number of conclusions which can be made. First and foremost, it may be concluded that the quality of infrastructure among quite a number of public primary schools in Kathonzweni division is in poor state. This puts a reason for recommendations to be put in place to address the deteriorating conditions of infrastructure in the schools.

In terms of funds, it is concluded that the major sources of funds for infrastructure development in schools include parents, CDF funds, government allocations and donors. However, these funds are not adequate and thus schools are not in a position to meet the full cost of developing infrastructure in the schools. Thus, it may be concluded that inadequacy of funds affect infrastructure development in public primary schools in Kathonzweni division to a greater extent.

Policies and regulations have also been noted as a factor that affects infrastructure development in schools. Tight policies such as those for procurement have been noted as to delay the process of obtaining materials to be involved in the infrastructure development process. Moreover, the policies do not show different roles that different stakeholders should play in the development of infrastructure in schools. As such, it is concluded that policies and regulations affect infrastructure development in schools to a greater extent.

The involvement of the community members is critical to the success of infrastructure development in schools. However, there are a number of issues which arise that affect their involvement in the infrastructure development process. Poverty and political interferences affect the way community members participate in infrastructure development. However, the roles they play include providing finances, labour and materials and carrying out repair services.

The attitude can be concluded a determinant that affects stakeholders' involvement in the infrastructure development process. For instance, most of them hold the idea that FPE is free hence it remains the responsibility of the government to take care of the infrastructure in schools. Moreover, due to negative attitude some parents do not want to contribute finances or labor to support the development of infrastructure. This affects infrastructure development in the school to a greater extent.

#### **5.4 Recommendations**

That the Ministry of Education should start negotiations with County governments to pursue the possibility of counties getting more actively involved in funding school infrastructure projects. This will be a big boost to upgrading the dilapidated structures in many schools as noted in the case of public primary schools in Kathonzweni division. This will also ease pressure on FPE fund which can then be channeled by the head teachers towards improving learning through the purchase of teaching and learning essentials in the classroom. Infrastructure is currently

competing with for scarce resources with other learning requirements hence the financial constraint is piling pressure on head teachers.

The MoEST should use the local education officers to carry out awareness sessions with parents and key stakeholders to sensitize them on way that they can support their schools by developing the required infrastructure through provision of all possible resources including giving in kind. There is need for more stakeholders to be involved in the infrastructure development process in schools. This will help to ensure full community involvement in school infrastructure development.

MoEST should strengthen the training for head teachers on resource mobilization for infrastructure development build their capacity on infrastructure development and management in the schools. These trainings may be carried out in the course of holidays or within the school periods so as to provide an ample time for head teachers to exercise what they learn.

It is also recommended that as far as possible, there is need for more money to be allocated by the government to support infrastructure development in public primary school. This is because from the head teachers' responses on adequacy of funds, it was clear the funds currently allocated by the government are not sufficient for developing school infrastructure. There is also need for the government to create time to facilitate the revision of the policies so as to provide clear guidelines in infrastructure development as well as avoiding the delays which are experienced in the procurement process of materials for infrastructure development.

The school head teachers have a role that they need to play in mobilizing the community members and parents on the importance of their involvement in the infrastructure development process. Through general meetings in the schools, the head teachers can inform the parents how their involvement in the school creates a lot of opportunities in facilitating infrastructure development processes.

The school head teachers and the chairpersons of both the PTA and BoG need to put their heads together and strategize on the mechanisms that they may employ in mobilizing resources for infrastructure development in schools. This may be done through harambee, fundraising functions, developing of infrastructural funding proposals among many others.

The community members have a sole responsibility that they need to play in promoting infrastructure development in schools. As such, they need to be encouraged and motivated by being informed through open air campaigns that their support and involvement in the construction of infrastructure in schools is highly recognized and appreciated. More avenues need to be created which directly involves the participation of community members in the development of physical infrastructure in the schools.

#### **5.5. Suggestions for further research**

1. This study focused on factors influencing infrastructure development in public primary schools, but did not look at parents' occupation or economic

activities and levels of education. A study can be done on the influence of parents' occupation /economic activities and their levels of education on school infrastructure development.

2. This study was limited to Kathonzweni Division in Makueni County. Other studies on factors influencing school infrastructure development should be done in other parts of Kenya to look at other factors and compare the findings.

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## **APPENDICES**

### **APPENDIX I**

#### **LETTER OF INTRODUCTION**

Josiah M. Ojwang  
University of Nairobi  
Department of Educational Administration and Planning  
P.O. Box 30197 NAIROBI

The Head teacher,

Dear Sir/Madam,

#### **RE: PARTICIPATION IN RESEARCH**

I am a post graduate student at the University of Nairobi pursuing a master's degree in Education. I am conducting a research on the topic “**Factors influencing infrastructure development in public primary schools in Kathonzweni division, Kenya.**”

This study is going to benefit the principals and teachers to understand the relevance of infrastructural development and the key approaches to resource mobilization in public primary schools.

I hereby request you to assist me with necessary information to help me obtain accurate findings. Kindly allow me to carry out this research in your school.

Thank you.

Yours faithfully,

Josiah M. Ojwang.

## APPENDIX II

### QUESTIONNAIRE FOR HEAD TEACHERS

Please read the questions below and kindly give the appropriate response by ticking (✓) or writing in the spaces provided .Please note that this information is purely for academic purpose and your identity will be held in utmost confidentiality.

#### Section A: Personal Information

1. Name of school: .....

2. What is your highest academic level?

- |            |     |                          |     |
|------------|-----|--------------------------|-----|
| a) P1      | ( ) | d) Degree                | ( ) |
| b) ATS     | ( ) | e) Master's Degree       | ( ) |
| c) Diploma | ( ) | f) Other (specify) ..... |     |

3. How many years have you been a head teacher in this school?

- |                  |     |                   |     |
|------------------|-----|-------------------|-----|
| a) Below 2 years | ( ) | c) 5-10 years     | ( ) |
| b) 2-5 years     | ( ) | d) Above 10 years | ( ) |

4. What is the number of pupils attending the school? .....

6. What is the status of the infrastructure in your school?

Physical Infrastructure	Are they Comfortable	Number	Status (very good, good, bad, very bad, n/a)
Classrooms			
Furniture			

Toilets			
Kitchen			
Water Point / Tank			
Other (specify):			

- a) When your furniture break down who repairs them? .....
- b) Are they repaired in time? .....
- c) Do the pupils seem overcrowded in class? .....
- d) Do you face any problems with your toilets? .....
- If yes list them: .....

**Section B: Availability of Funds for Infrastructure Development**

7. Where have your sourced funds to put up the following infrastructure?

<b>Physical Infrastructure</b>	<b>Source [CDF, LATF, KESSP, fees, donors, etc.]</b>	<b>% funded</b>
Classrooms		
Furniture		
Toilets		
Kitchen		
Water Point / Tank		
Other (specify):		

8. Do these provide sufficient funds for physical infrastructure development?

---

9. To what extent does the availability of funds influence resource mobilization for infrastructure development in your school?

- a) To a greater extent [ ]                      c) Not at all [ ]  
b) To some extent [ ]                              d) Not sure [ ]

**Section C: Role of Community in Infrastructure development**

10. What are some of the roles that the community plays in infrastructure development in your school?

---

11. To what extent has the community members in your area contributed towards the development of infrastructure in your school?

---

**Section D: Policies and Regulation on Infrastructure development**

12. Tick all the methods that you use to raise money to develop school infrastructure.

- (a) Government allocation    (b) CDF funds                      (c) Religious organizations  
(d) School Fees                      (e) Parents contribution                      (f) Other (specify)\_\_\_\_\_

13. Are there any policies which you are aware of that aid in infrastructure development in your school? \_\_\_\_\_

14. Does the school have a Resource Mobilization Plan or policies for infrastructural development? \_\_\_\_\_

15. Do the available policies encourage the involvement of teachers in choosing or suggesting what methods can be used to mobilize funds for school infrastructure development? \_\_\_\_\_



**APPENDIX III**

**INTERVIEW GUIDE FOR PTA AND BOM CHAIRPERSONS**

1. Date \_\_\_\_\_
2. Center \_\_\_\_\_  
Position PTA official ( ) BOM official ( )
3. What is the role of the body you officiate with regards to infrastructure development? \_\_\_\_\_
4. Does the school have a resource mobilization plan?  
\_\_\_\_\_
5. How does the school source funds for infrastructure development?  
\_\_\_\_\_
6. What are the main sources of funds for infrastructure development in the school?  
\_\_\_\_\_
7. What are the community concerns about the school's infrastructure?  
\_\_\_\_\_
8. Are there any government policies which influence or promote resource mobilization for infrastructure development in public primary schools? Yes/ No. explain \_\_\_\_\_
9. How does stakeholders' attitude affect the infrastructure development in schools?  
\_\_\_\_\_
10. In your view, what can be done to improve resource mobilization for infrastructure development?  
\_\_\_\_\_

*Thank you*

## **APPENDIX IV**

### **INTERVIEW GUIDE FOR DEO, DQASO AND AEO**

These interviews will be conducted by the researcher and will target the DEO, DQASO and AEO in charge of the division to get their views on resource mobilization for school infrastructure development.

1. What are the main sources of funding for infrastructure development in public primary schools in Kathonzwani district?
- 

2. What factors make the sources mentioned above prevalent choose as the main ways of raising money for funding school infrastructure?
- 

3. Do you organize/prepare training sessions for primary school head teachers on management/resource mobilization?

4. Are there any policies addressing on infrastructure development in public primary schools? Yes/ No. if yes, indicate these policies.
- 

5. How do governmental policies affect resource mobilization for infrastructure development in public primary schools?
-

6. In your experience, what are the challenges faced by head teachers in  
Kathonzwi as they raise funds to develop school infrastructure

---

7. How does stakeholders' attitude affect the infrastructure development in schools?

---

8. Please comment on any other alternative approaches or sources that can be used by head  
teachers to mobilize funds for developing school infrastructure in Kathonzwi

---

*Thank you*

## APPENDIX V

### OBSERVATION CHECK LIST

<b>Physical Infrastructure</b>	<b>Number</b>	<b>Status (very good, good, bad, very bad, not available)</b>	<b>Adequacy(Adequate, not adequate, not available)</b>
Classrooms			
Play grounds			
Students desks			
Teachers' tables			
Teachers' chairs			
Blackboards			
Toilets			
Kitchen			
Water Point / Tank			
Other (specify):			

## APPENDIX VI

### RESEARCH AUTHORITY LETTER

#### MINISTRY OF EDUCATION SCIENCE AND TECHNOLOGY

Office of the Sub-County Director of Education, Kathonzweni Sub-County

#### State Department of Education

Telegrams: "Kathoedu"  
Telephone:  
E-mail: deokathonzweni@gmail.com  
When replying please quote



SUB COUNTY EDUCATION OFFICE,  
KATHONZWENI SUB COUNTY,  
P.O. BOX 103-90302  
**KATHONZWENI.**

19<sup>th</sup> June, 2015

**REF: ED/KZN/ED 5/22 VOL I/20**

TO  
ALL HEADTEACHERS – PRIMARY SCHOOLS  
KATHONZWENI DIVISION  
**KATHONZWENI SUB COUNTY**

#### **RE: RESEARCH AUTHORITY – JOSIAH M. OJWANG**

The above mentioned is a registered Post graduate student at the University Of Nairobi- Kenya. He intends to undertake a research on ***Factors influencing infrastructure development in public primary schools in Kathonzweni division, Kathonzweni sub county in Makueni county, Kenya.***

Kindly accord him all necessary support he requires.

Yours faithfully,

ASSISTANT DIRECTOR OF EDUCATION  
KATHONZWENI SUB-COUNTY  
P. O. Box 103-90302  
KATHONZWENI



SIMON NGUMBI  
FOR: SUB COUNTY DIRECTOR OF EDUCATION  
**KATHONZWENI SUB COUNTY**

ISO 9001:2008 CERTIFIED



## APPENDIX VII

### LETTER OF INTRODUCTION



UNIVERSITY OF NAIROBI  
COLLEGE OF EDUCATION AND EXTERNAL STUDIES  
SCHOOL OF EDUCATION  
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING

Telegram: "CEES"  
Telephone: 020-2701902  
dept-edadmin@uonbi.ac.ke

P.O. BOX 30197 NAIROBI  
OR P.O. BOX 92  
KIKUYU

16<sup>th</sup> June, 2015

Our Ref: UON/CEES/SOE/A&P/1/4

#### TO WHOM IT MAY CONCERN

Dear Sir/Madam

SUBJECT: OJWANG JOSIAH MESHACK - REG NO. E55/75331/2012

This is to certify that **Ojwang Josiah Meshack** is our Master of Education student in the Department of Educational Administration and Planning at the University of Nairobi. He has successfully completed his course work and is summarizing his research on "*Factors Influencing Infrastructure Development in Public Primary Schools in Kathonzweni Division, Makeni County, Kenya*".

Any assistance accorded to him will be highly appreciated.

Yours faithfully,

**DR. GRACE NYAGAH**  
CHAIRMAN  
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND PLANNING



GN/nd

## APPENDIX VIII

### AUTHORIZATION LETTER



#### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 310571, 2219420  
Fax: +254-20-318245, 318249  
Email: secretary@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref: No.

Date:

**2<sup>nd</sup> July, 2015**

**NACOSTI/P/15/5833/6787**

Josiah Meshack Ojwang  
University of Nairobi  
P.O. Box 30197-00100  
**NAIROBI.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Factors influencing infrastructure development in public primary schools in Kathonzweni Division, Makueni County, Kenya*," I am pleased to inform you that you have been authorized to undertake research in **Makueni County** for a period ending **31<sup>st</sup> July, 2015**.

You are advised to report to **the County Commissioner and the County Director of Education, Makueni 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.

  
**SAID HUSSEIN**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Makueni County.

The County Director of Education  
Makueni County.



# APPENDIX IX

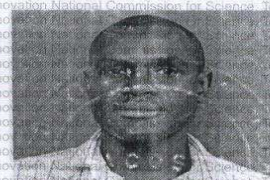
## RESEARCH CLEARANCE PERMIT

**THIS IS TO CERTIFY THAT:**  
**MR. JOSIAH MESHACK OJWANG**  
**of UNIVERSITY OF NAIROBI, 34606-100**  
**Nairobi, has been permitted to conduct**  
**research in Makueni County**  
**on the topic: FACTORS INFLUENCING**  
**INFRASTRUCTURE DEVELOPMENT IN**  
**PUBLIC PRIMARY SCHOOLS IN**  
**KATHONZWEZI DIVISION, MAKUENI**  
**COUNTY, KENYA**  
**for the period ending:**  
**31st July, 2015**

**Permit No. : NACOSTI/P/15/5833/6787**  
**Date Of Issue : 2nd July, 2015**  
**Fee Received :Ksh 1000**

**Dr. Joseph M. Njoroge**  
**Applicant's Signature**


**F. O. Ochieng**  
**Director General**  
**National Commission for Science, Technology and 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 that 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.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant 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.**

**REPUBLIC OF KENYA**



**NACOSTI**  
**National Commission for Science, Technology and Innovation**



**RESEARCH CLEARANCE PERMIT**

**Serial No. A 5636**

**CONDITIONS: see back page**